Education Health and Migration

Perspective from Alternative Economics




Edited by
Abdul Salim A
Siddik Rabiyath

The book is a compendium of eleven studies related to the alternative perspectives of education, health and migration. It is expected that the volume would be useful to the students of social science, researchers, academicians, policymakers and those interested in various aspects related to education, health and migration.

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Abdul Salim A was awarded Ph D in Economics from the University of Kerala in 1993. He has 29 years of teaching and research experience (first at Jamia Millia Islamia, New Delhi, then in Government /Aided Colleges of Kerala and later at the Department of Economics, University of Kerala). Fifteen scholars had been awarded Ph.D under his guidance. Dr.Salim is the first Honorary Director of the Inter University Centre for Alternative Economics (IUCAE) in the University of Kerala. The Centre promotes research and innovative studies in heterodox economics. He has successfully completed six Major Research Projects sponsored by the UNDP, UGC, CDS and the University of Kerala. He had also served in several academic and administrative bodies. Salim has made substantial contribution in his specialized area of Economics of Education and published five books and 27 articles/papers in refereed journals and books. His first book titled 'Cost of Higher Education in India with Special Reference to Kerala' was published in 1997 and the second on 'Educational Development in India- the Kerala Experience Since 1800' published in 2002 (co-author Prof.PR Gopinathan Nair). His edited volume is titled 'Higher Education in Emerging India: Problems, Policies and Perspectives'. The book titled 'Unit Cost of Higher Education: A Study of Kerala University' has been published by APH Publications, New Delhi in 2021. The fifth book titled 'Expansion, Equity and Efficiency of Higher Education in Kerala' is published online by Current (DC) Books, Kerala. The recent books are "Institutions and Development, 2022'', "Banking and Financing, 2022'', "Economic Analysis of Environment, 2022''.

Siddik Rabiyath was born on March 15 1983 at Vizhinjam, a historically important fishing hamlet in Thiruvananthapuram, as the youngest child of Rabiyath Beevi and Abdul Kareem. His schooling was from SV LPS and Venganoor Boys High School and higher studies from University College, University of Kerala, University of Hyderabad and Jawaharlal Nehru University. He joined the Department of Economics, University of Kerala as Assistant Professor in 2013. Currently having additional charges of Director, Department of Student Services (from 2018) and Director, Inter University Centre for Alternative Economics (from 2020), University of Kerala. Numerous national and international journal/popular articles, books and paper presentations are in his credit. The recent books are "Kadalalarude Jeevanavum Athijeevanavum (Life and Livelihood of Marine Fisherfolks) 2021", "Navaudaaree-karanathinte Parimithikalum Badal Anweshanangalum (Limits of Neoliberalism and a Quest for Alternative) 2022", "Women, Work and Development, 2022'', "Women, Education, Leadership and Development, 2022'', "Institutions and Development, 2022'', "Banking and Financing, 2022'', "Economic Analysis of Environment, 2022'', ''Invisible to Visible: Role of Women in Development'' 2023.

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Introduction

The unique economic circumstance of a nation is often indebted to its socio-cultural and political economy. As we may have no disagreement on the differences and diversities we live, the economic ideas taught as mainstream programmes as universally acceptable principles and policies hardly recognize the differences. The one size fits all approach, in reality, denies the presence and comprehension of all the distinctions, as well as the numerous policies and practices we employ in order to live a better life. The cornerstone of the one-size-fit view stems from individual rationality and utility maximization, which of late had questioned and proved inconsistent to have a choice of individual or society. Given the kind of socio-economic reality of the present world economy, the persuasion of the standardized norm is not helpful for all.

At an alternative level, humanism is increasingly fore grounded in resolving present problems and the whole socio-economic and even the political framework is incrementally getting revolutionized on the principles of rights rather than individual rationality. Development thus envisages new economic ideas and policy regimes. Further in the modern economy, especially under the onslaught of capital and its vociferous idea of individualism, the whole lots of issues already emerged so far and in the process of emergence cannot be dealt with the mono lens of capital and its supporting neoclassical idea. This requires studies beyond the mainstream and dominant neo classical ideas that are embedded in present curriculum.

Alternative economics provides an alternative approach to mainstream economics which helps to explain the economic phenomenon that is ignored or unaddressed by more conventional theories namely the capitalist production structure. Often the different approaches other than capitalist or mainstream neoclassical economics put under the carpet either deliberately or in the name of convenience and the result is the prevalence of the neoclassical capitalist understanding. The non-

neoclassical schools include the local/village level production based on cooperative and solidarity premises to state owned mode of production. It can credibly explain why some groups of people have been impotent to make advancements their standard of living even under the capitalist production structure or why some countries advance without even the capitalist production structure being followed. Alternative economics often seeks to entrench social and historical factors into analysis, as well as evaluate the way in which the behaviour of both individuals and societies alters the development of market equilibria in cooperative and coexisting logic than the competitive logic of the neoclassical. Alternative economics we mean the heterodox approaches adopted to deal with various interests pertaining to the development of society. There is also more diversity in heterodox approaches and this has also led to more multi-disciplinary analysis of economic problems. However, the heterodox approaches to power—social, financial and political—do seem to fit a regular person's experience in the world and the history of the world better than some of the widely accepted mainstream theories.

Alternative Economics is any economics thought or theory that contrasts with orthodox schools of economic thought or maybe beyond neoclassical economics. These include institutional, evolutionary, feminist, social, post-Keynesian, ecological, Austrian, Marxian, socialist, and anarchist economics. Economics may be called orthodox or conventional economics by its critics. Alternatively, mainstream economics deals with the "rationality–individualism–equilibrium nexus", and alternative economics is more "radical" in dealing with the "institutions–history–social structure nexus".

Alternative Economics is an umbrella term covering various strands of economic thought and a series of interdisciplinary research fields. While alternative economics is internally highly diversified, most alternative economists agree on certain conceptual definitions (e.g. doing economics is to study the process of social provisioning in a broad sense), theoretical foundations (e.g. the role of uncertainty in economic action or the importance of the principles of effective demand and

endogenous money) and a common epistemological framework, that takes the form of pluralist engagement. These commonalities imply that alternative economists do not necessarily reject any analysis based on the "holy trinity" of conventional economics, i.e. scarcity, rationality and equilibrium, but contest that, as in the current state of the economic discipline, economic research should always assume this holy trinity as the only relevant starting point for economic thought. Hence, while alternative economics is, on the one hand, simply an open-minded, interested and critical starting point for analysing economic issues, it also serves as a common denominator for those economic views which are increasingly marginalised within the economics profession.

In order to discuss alternative economics, it is important first to discuss the idea of orthodoxy. The term orthodox thinking refers to those thoughts or ideas that are accepted by the majority. The ideas that are considered orthodox typically shift over time, large geographic areas, and social groups. For example, what was considered orthodox scientific thought in medieval Europe would not be considered orthodox in the modern western culture of today. When it comes to economics, orthodoxy refers to mainstream or neoclassical economics. Elements of this school of thought have dominated the field for over 150 years and continue to do so today.

The history of economic thought is full of orthodox theories that have held sway for extended periods of time. Many orthodox economic theories are based upon ideas of authority and hierarchy in that they tend to be based upon the ideas of a small group of influential thinkers. For example, the classical economists of the 18th and 19th centuries, such as Adam Smith and David Ricardo, dominated economic thought for many years. Similarly, the Keynesian economics of the 20th century held sway for several decades. The dominance of these orthodox theories has led to a situation in which alternative thinking is often marginalized. Alternative economics is an umbrella term that refers to any alternative economic theories that are outside of the mainstream.

As previously mentioned, alternative economics is an approach to economic analysis that is outside of the mainstream. There are a number of reasons why economists may choose to adopt a alternative approach. One reason is that they may feel that mainstream approaches could be better suited to addressing the specific economic problems that they are interested in. Another reason is that they may think that mainstream economics is too narrowly focused and does not take into account a wide enough range of economic phenomena. Some alternative economists criticize orthodox economics for being too mathematical and for relying too heavily on models and theories instead of empirical evidence. Other alternative economists tend to be critical of the way that mainstream economics treats individuals as rational utility-maximizing agents. These alternative economists may feel that this approach does not adequately take into account the role of emotions, institutions, and social norms in economic decision-making.

The Economics of Education as an area of study cannot be said to be a separate field of inquiry that is totally different from the ordinary economics. Economics of Education is the application of Economic principles, concepts, laws to the process of Education. Economics of education studies human behaviour (in terms of human decisions), action(s) and reaction(s)) about schooling. It further looks into how human behaviour affects economic development. Economics of education is one of the branches of ordinary economics, though, it is the study of how educational managers make official or approved choices from scarce available resources which is meant for the realisation of the best possible educational outcomes. Economics of Education employs the use of some elementary concepts commonly used in labour economics, public sector economics, welfare economics, growth theory and development economics. World known classical economists like Adam Smith, Alfred Marshall, John Stuart Mill had discussed education and development extensively, advocating for public investment in education. So, by the 1950s, economists gave attention to issues such as the relationship between education and economic growth;

relationship between education and income distribution and also the financing of education.

Over the course of the past few decades, development and human rights discourse has increasingly referred to education as a public good. Recent examples of this include the 2015 Incheon Declaration and the Education 2030 Framework for Action2. Indeed, Goal 4 of the 2030 Agenda for Sustainable Development, which aims to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all", is grounded in long-established foundational principles of education as a human right and as a public good (UNESCO, 2015). The notion of education as a public good underlines the primary responsibility of the State in ensuring the right to education for all, in safeguarding social justice and the public interest in education. In light of this, States are expected to directly provide or finance educational opportunities, particularly for the duration of compulsory education. Indeed, the first target of Sustainable Development Goal 4 further stipulates the provision of twelve years of free public primary and secondary education of which at least nine years should be compulsory. However, the conceptualization of education as a public good in the development discourse is problematic for a number of reasons. First and foremost, there are theoretical limitations inherent to the transposition of the economic concept of public good to the field of education. Moreover, the lead role of the State which it implies is increasingly being questioned. This is largely the result of the changing dynamics in the global educational landscape characterized by the growing involvement of non-state actors in educational policy and provision, as well as by the growing scale of for-profit education at all levels. The latter, in particular, undermines the role of the State and may lead to forms of discrimination in education, as well as to a narrowing of the social purposes of education towards merely private interests. While recognising the importance of non-formal education, this analysis focuses primarily on formal education, where international conventions and national legislation more clearly establish the role of the State.

At the international level, the principle was first used by UNESCO to reaffirm a humanistic vision of education in contrast to more utilitarian and economic approaches prevalent in the development discourse of the 1990s. A number of reports of the UN Special Rapporteur on the Right to Education since 2000 have referred to education as a public good to justify the need to safeguard the public interest. The principle of education as a public good has also been used as a reference when advocating for adequate public funding for quality education and when reaffirming the role of the State as the main duty bearer in ensuring the right to education. Indeed, several UN human rights treaty bodies4 and civil society organizations5 have referred to this notion to "reject calls for increased privatization or commercialization in education". These diverse interpretations of the principle of education as a public good in education development discourse are interrelated. Whether interpreted as a humanistic vision, a policy focus or a principle of governance, the principle of education as a public good refers to the definition and preservation of the collective interests of society and to the central responsibility of the State in doing so.

Many experts have debated the meaning and applicability of the concept of public good to education, often with conflicting visions and approaches. One set of issues can be related to the justification for state intervention. Determining whether education is a public good or not is related to considerations about the existence of conditions for state intervention. According to a narrow interpretation of the economic theory of public goods, education may be seen as a private good. Indeed, classroom space can be excludable, and a higher number of students in a class may affect the quality of education being provided and consumed, making it rivalrous. It follows that if education were a private good, control would be left to individuals, acting through market mechanisms. Despite these considerations, in most countries, basic schooling has been turned into a free, universally available and compulsory service provided by the State, thereby exhibiting the characteristics of non-rivalry and non-excludability typical of public goods. Those who consider education as an impure public good, or a public

good by design, also acknowledge that it can somehow be excludable and rivalrous but justify state intervention based on other economic considerations, mainly related to the public benefits that education engenders. Moreover, in addition to aspects of economic efficiency, there may be issues of equity and social justice that also justify the public intervention of a redistributive nature. The redistributive and regulatory functions should be seen as essential functions of the State to ensure equality of educational opportunity, inclusion and social cohesion. Indeed, private supply does not guarantee the production level that maximises collective well-being. It has been argued that the notion of public good "has a clearly defined ideal content which is present only in varying degrees and has no agreed-upon implementation strategy". Education, like all other goods, may exhibit the characteristics typical of the concepts of a private or public good simultaneously. As acknowledged by Amartya Sen (1999), education, often considered as a human right and with significant public benefits, has a public-good component as well. Since education undoubtedly has important aspects of a public good, it requires state intervention.

A range of alternative economic approaches has been developed that challenge many mainstream health economics assumptions. Some of these are better suited to the complex social environment present within health care. Healthcare provision and expenditure are attracting increasing attention from economists, but alternative approaches within economics have received relatively little consideration. Neoclassical theoretical concepts remain at the forefront, despite the claim that they have been transcended elsewhere. It is argued here that the peculiar features of the health sector and the special requirements of health policy limit the viability of a neoclassical connected with the attainment and with use of the material requisites of well-being. The standard normative neoclassical approach to economic welfare assumes that individuals seek to maximize their utility; the individual is the best judge of whether their utility is maximized. Changes are acceptable only if they increase the utility of at least one person and decrease the utility

of no one. The latter is, of course, the Pareto criterion. But these welfare criteria are so unsuited for health policy that many mainstream health economists are inclined to adopt alternative normative criteria, focusing on health measures rather than utility. One is left wondering why neoclassical theoretical propositions are retained when the standard normative apparatus of neoclassical theory is often abandoned. The adoption of some but not other elements in the standard neoclassical package is a bit odd. This essay questions the relevance of all neoclassical precepts in this context. Leading mainstream health economists suggest that health care has special features that make it different from other application domains, posing restrictions on the appropriateness of some neoclassical assumptions. Why is health care different? In response, the literature points to the presence in healthcare of externalities, information asymmetries, uncertainty, supplier-induced demand, and derived demand. But while all these features are important, they are neither universal in health care systems nor unique to them. Here I try to identify the peculiarities of healthcare systems by building on the neglected but vital concept of need. By contrast, mainstream economics starts from the subjective satisfaction or utility of the individual. Modern mainstream economics rejects or ignores the concept of need, but many leading economists, from Adam Smith to Alfred Marshall, have acknowledged objective needs and subjective satisfactions.

Migration is a historical phenomenon that has helped to minimize regional differences at various phases of development. It is an equilibrium process. Since the conclusion of the cold war, migration, encompassing refugee flows, asylum seekers, internal displacement, and development-induced displacement, has grown significantly in volume and political significance. It is now a crucial component of North-South interactions and is directly related to the ongoing processes of global social transformation. Due to this, it is equally crucial for sociologists to do empirical study and analysis on migration and to include it into their theoretical models of modern society. While there are connections between the study of migration and research on economic migration, the latter has its own unique research

questions, methodological obstacles, and conceptual problems. The root cause of migration is the fundamental reason for the occurrence of an event, in this case, migration. Often, in the migration context, there are both push and pull factors, with push factors being reasons why people would want to leave their home country and pull factors being reasons why people would want to come to a new country. In migration, push and pull factors can be economic, environmental, social and political. Economic migration, whether permanent or seasonal, is a commonly cited reason for migration. In general, it is believed that in economic migration, people move from poorer developing areas into richer areas where wages are higher and more jobs are available. It is also common for people from rural areas to move to more competitive urban areas to find more opportunities.

Safety factors can cause danger to individuals, prompting them to migrate. Persecution and discrimination based on nationality, race, religion, political beliefs, or membership status in a particular social group will prompt people to move large distances in search of a safer living location where they can have freedom over their lives. Danger can be imposed upon individuals by something formal, like war, or informal, such as widespread gang activity. Migration caused by environmental factors is increasingly involuntary. Environmental factors cause displacement or the forced movement of people by social or environmental factors. Crop failure, for example, often results in food scarcity and a drop in agricultural jobs, prompting people to move to a place with better job opportunities and climate. Pollution of water, air and soil in urban and rural settings can also create a serious health risk to locals, forcing them to look for a better life for themselves and their children.

Social factors motivating migration grow from the human needs and desires to achieve a better quality of life. Migrants often move to ensure better opportunities for themselves or their families, like sending their child to a better, safer school or finding a job that would have not only a sufficient salary but also important benefits and career growth prospects. In terms of education, the United States graduate programs have been a

particularly strong attraction for young, talented individuals worldwide. Individuals can also migrate in search of services, such as life-saving surgery and medical treatment, inaccessible in their home area.

Migration has been the single-most dynamic factor in the development scenario of Kerala in the last quarter of the twentieth century. Kerala is approaching the end of the millennium with a little cheer in many people's homes, a major contributing factor for which has been migration. Migration has contributed more to poverty alleviation in Kerala than any other factor, including agrarian reforms, trade union activities and social welfare legislation. The study shows that nearly 1.5 million Keralites now live outside India. They send home more than Rs.4,000 million a year by way of remittances. Three-quarters of a million former emigrants have come back. They live mostly on savings, work experience, and skills brought with them from abroad. More than a million families depend on internal migrants' earnings for subsistence, children's education and other economic requirements. Whereas the educationally backward Muslims from the Thrissur-Malappuram region provide the backbone of emigration, it is the educationally forward Ezhawas, Nairs and Syrian Christians from the former Travancore-Cochin State who form the core of internal migration. Migration in Kerala began with demographic expansion, but it won't end with demographic contraction. Kerala has still time to develop itself into an internally self-sustaining economy. The prevailing cultural milieu of Kerala in which its people believe that anything can be achieved through agitation and any rule can be circumvented with proper political connections, must change and be replaced by a liberalised open economy with strict and definite rules of the game.

Christabell P. J in her chapter entitled “STEM Pipeline: How Far does Kerala Fare?” focuses on the different factors of higher education in STEM disciplines and how they impact the quality of students who pursue education in this wide setting, thereby affecting the STEM pipeline. In a knowledge-based economic system, STEM (an acronym for science, technology, engineering, and mathematics) education plays a pivotal role.

The "pipeline" metaphor is based on the notion that in order to produce enough graduates, there must be an adequate intake of students at the outset of their studies as well as retention of these students throughout their academic careers. The STEM pipeline is a crucial part of workforce development and workplace diversity that guarantees there are enough skilled people available to fill scientific and technical professions. The chapter focuses on the different factors of higher education in STEM disciplines and how they impact the quality of students who pursue education in this wide setting, thereby affecting the STEM pipeline. The numerous aspects and critical variables that affect persons seeking higher education in STEM fields at Kerala's various colleges are discussed in chapter. The various social, demographic, and geographic variables influence students' decision to pursue higher education in STEM fields. The study provisions and study conditions existing in the higher education institutions for the STEM graduates include course specific, teaching and evaluation as well as extra-curricular activities. the issues with the curricula and General study process exist in the higher education institutions for the STEM graduates include career related, profession related, academic related and person

Gipson Varghese in his chapter entitled “New Skills for New Jobs - Level of Awareness about Employability Skills among the Graduate Students of Kerala”, an effort is made to understand the demand for employability skills and awareness of such skills among graduates of the universities of Kerala state. Business and educational leaders are of the opinion that students/graduates should have employability skills and competences to get right jobs. At the same time, graduates face challenges in the labour market by lacking required skills which impede them to get jobs. Additionally Post-Covid scenario has worsened the recruitment process and have lessen the number of jobs available in all sectors. But not much proper contemplation is done to include required skills and competences in the curricula and implement in the teaching-learning process. It is seen that there are fundamental flaws in the educational practices which do not recognize current requirements. The

pandemic has already affected the educational sector by closing the schools and colleges of the entire world. Even before the pandemic the education and labour market was in a drastic change, demanding graduates to possess skills and competences that go beyond qualification and experience. Although causes serious problems, this pandemic could be help us to counter the shocks and turn crisis into opportunities. Towards a better future, graduates have to be informed and prepared to face the challenges and explore opportunities of the future. Skills and abilities like, entrepreneurial mind-set, leadership, communication, social commitment, cooperation etc, would be greatly appreciated by the future labour market and employers would prefer individuals who would support the companies to seize the opportunities. Therefore it's a high time for graduates to be prepared and employable. As socio-economic and political conditions have totally changed due to this unexpected global virus, jobs created and skills required in the future will have to be assed from a post-COVID scenario.

Shyla Hameed in her chapter "Higher Education and Human Capital Utilization - Opportunities, Challenges and Constraints in Idukki District" analyses the access and opportunities of higher educational facilities of Idukki district and the socio-economic status of students/parents those who are enrolled in higher education. It also focused on the constraints and challenges faced by the students/parents in higher education. The sample selections of students were based on the proportion of intake and enrolment in the sampling institutions of Idukki district. Stratified random sampling method is used. The differences of educational access/availability/problems and challenges of plane land and highland areas were analyzed using simple statistical methods. The students of Idukki district are witnessing some significant difficulties regarding their higher education as compared to other districts. In addition to this there are a lot of deviations and differences exist in between the high range regions and the plain land regions of this district. The study result reveals that there exist disparities in the highland and plane land areas of Idukki district regarding the higher education and attainment of opportunities.

Meriam Vandana Alex & S Padma Annakamu in their chapter 'Behavioural Interventions to Aid First-Generation College Students: Evidence from field experiments' examined behavioural hindrances that they face and also discusses the applicability of behavioural interventions among first-generation students. As social and cultural capital influences a first-generation student, it was important to understand their parent's and siblings' educational and occupational status, income, expenditure patterns, etc. It was also important to know which community they belonged to. The majority of the first-generation belonged to the scheduled caste category and the least represented in this survey was from the general category. It was also noted that a few of the parents had either died or separated which would have also had a huge impact on a student's life. Following a systematic approach, the BIAFS framework was designed. The framework consisted of identifying problems associated with first-generation students that had the potential for behavioural intervention. Appropriate interventions were conducted and tested to check whether the desired result could be achieved. Each intervention was customized according to its fit in the context. All the interventions were designed as nudges as these were aimed to help first-generation students to take better decisions. This project launched five interventions in the area of submission of assignments, attendance, higher grades, learning activities and support group sessions. It was statistically proven that the most efficient intervention among these were the interventions targeted at attendance and submission of assignments.

Deepa B in her chapter 'Strategies in Health Care Promotion and Subjective Well-Being: A Study Based on National Rural Health Mission examined the strategic dimensions of social capital in fostering subjective well-being. Social capital, which emphasises reciprocity between individuals is impossible to be imparted through Public Policy. Its effects can be witnessed in many spheres like reduction in economic costs, strengthening of political associations, etc. that ensure the success of modern democracy. Recently planning decisions and policies also started looking into the dimensions of social capital like norms,

neighbourhood attachment, civic participation and social networks. The access to utility reform can be assessed by analyzing the structural component of social capital which put the strategy into action. The very presence of social capital itself contributes to the success of developmental projects, resulting in a paradigm shift that can be realized with the generation of social capital. The utility reform explored through this project is confined to the health care sector with special reference to National Rural Health Mission (NRHM) policy. The study tries to identify links between the communities and national health systems under this flagship programme. The related characteristics can influence the attainment of economic, social and health outcomes of an individual. These aspects should be duly considered while charting out policy programmes. The Study observed that social circumstances play an influencing role in moulding the quality of life. There is an association between social capital and health care experiences among low-income communities. Moreover, the attitude prevailing among the members of the family is a vital ingredient in ensuring positive outcomes.

The chapter titled “Influence of Lifestyle on Reproductive Morbidity and Pregnancy Outcome among Women in the Context of Palakkad District, Kerala” by **Manju Varghese** tried to figure out the relationship between reproductive morbidity, lifestyles pursued by women and pregnancy outcome. Women health plays a vital role for the welfare of her family as well as offspring. The collaborative nexus of maternal, socio cultural and environmental contexts results in major negative pregnancy outcomes including neonatal mortality, low birth weight, stillbirths and malformations of the baby and even maternal deaths. Despite substantial achievements in maternal and child health over the past two decades, Kerala now faces new challenges, in the form of persistence of gynaecological morbidity and pregnancy complications along with a rapid rise in overweight and obesity in both children and mothers. Many of the health behaviors entangled in the emergence of chronic NCDs are originated in childhood under maternal health influence. The identification of core factors resulting in

morbidity and healthy behavior modification among expected mother can decrease the burden of morbidity of themselves and children. One of the main challenges facing Kerala in improving maternal health and quality of life is to identify the modifiable risk factors associated with pregnancy which will improve the pregnancy outcome. In the light of above context the study was carried out with twin objectives viz to find out the prevalence of reproductive morbidity rates among the respondents and to find the influence of lifestyle factors reproductive morbidity, pregnancy outcome and nature of delivery. Primary data is used for the purpose of the stud and the study was carried out in the rural and urban areas of Palakkad district Kerala. Reason for rural urban division is that social economic environmental and health atmosphere in rural urban zones are different which has a great influence in shaping maternal health style. The sample population comprises of women of age group 15-49 (reproductive age group) who has given birth to a child for last two years and the sample size was determined to be 200 using scientific method. Key findings of the study are reproductive rate was very high among sample population and among the reproductive rates the most prevalent was obstetric morbidity. The regression analysis pointed out demographic factors like age, life style factors, body mass index disability status and well being status has a major role in determining obstetric morbidity and negatively impacting the health of mother and child. Pregnancy outcomes and preconception health condition is also influenced by life style factors. Existence of gynaecological and obstetric morbidity was found more in urban areas than in rural areas. Presence of these morbidities is leading to preterm birth and caesarean births. Significant association between pre pregnancy condition, obstetric morbidity, and gynaecological morbidity, BMI of a person and age of the person is seen. Here existence of one condition leads to other. It is like a vicious circle starts with higher BMI leading to higher pre pregnancy conditions leading to higher gynaecological and obstetric morbidities and presence of such morbidities leading to caesarean deliveries and adverse pregnancy outcome. Change in life style factors help to reach

healthy BMI and other associated risk factors will also be reduced.

The chapter entitled 'Socio-economic Correlates of Marriage Migration in India' by **Krishnakumar C.S. and Jayakumar M. S** examined the magnitude of marriage migration in India across states and genders. Marriage migration in India is one of the largest permanent migrations in the world that brings structural changes in the labour force, demographic dividend, human capital and wealth transfer at different levels. We have formulated a conceptual framework to study migration from an alternative economic perspective. Data for the study were gathered from the Census of India and National Sample Surveys. It is found that the prevalence rate of marriage migration significantly varies across the states and union territories, and it is very high among females. Irrespective of gender, the distributions of prevalence rates at the state level are diverging in 2011 compared to that in 2001, implying the increasing significance of the region in marriage migration. The dimensions of marriage migration are explored with secondary data. The association of marriage migration with crucial indicators like work participation rate and literacy rate indicates that India urgently needs a policy for marriage migrants at the state level. More scientific studies and surveys at regular intervals are needed for a better understanding of marriage migration.

Anish Chandran in his chapter entitled 'Marxian Analysis of Exploitation in the Context of In-Migrant Construction Workers in Kerala' analyzed the problems of in-migrants and critical evaluation of the State's role in protecting in-migrant workers. In-migration to Kerala is not a simple process to look into. it is one of the most complex paradoxes of the labour market in Kerala. On the one side, Kerala is known for her out-migration to the Middle East and at the same time casual, and manual workers are flowing to Kerala from other states. This boom can be clearly visible in the construction sector of Kerala. Migrants provide a low-cost flexible workforce for the urban informal economy. Kerala's key attraction as a destination for domestic migrant labourers is the high wage levels in the state as

compared to the states of origin. They often work long hours in poor working conditions, devoid of social security and legal protection. There is a need to ensure that all migrants and their families have access to services and entitlements as enshrined in policies and law while ensuring urban settlements become inclusive spaces as they expand in size and diversity.

The chapter entitled 'Social Security of the Informal Sector Migrant Workers in Housing Construction Industry in Kerala: An Alternative View' by **Manoj P K** examined the exact nature of the social security issues in respect of the informal sector migrant workers in the housing construction industry in Ernakulam district of central Kerala, mapping their socio-economic profile, and identifying the factors that require focused attention for bringing about an inclusive and equitable labour market in the region; by integrating the ideas of alternative economics into the empirical data on migrant workers who work under the registered real estate developers in the housing construction industry. Housing is one of the primary human needs and hence this sector has been accorded the status of a priority sector by the successive Governments in India over the years, both at the State and Union levels. Its vast forward and backward linkages with other industries enable it to contribute significantly to the GDP of the nation, and as of 2019, its share is 9.4 per cent of the GDP. Besides, it is one of the highest contributors to employment generated and is second only to the agricultural sector. Regarding the residential housing construction sector in Kerala, the majority of the workers, however, are migrants from other states of India. Their social security measures need to be fine-tuned to ensure their high level of efficiency and productivity, and hence healthy and sustained growth of the housing construction sector in Kerala. The chapter analyses in detail the social security issues of informal sector migrant workers with reference to Ernakulam in Kerala, and suggests measures for their wellbeing, and hence the sustained growth of the sector.

The chapter on "Migration and Unequal Human Assets in Kerala" by **Krishnakumar C.S and Jayakumar M.S** argued that Kerala needs to consider assets inequalities in households in

relation to migration. In addition, we stress the significance of maintaining the existing public health care system for the welfare of citizens. Being a state, with relatively more advanced in the social and demographic achievement in the country, it has a long history of migration arises from the large quantum of unemployment especially among the educated youths. It is a state with many social and economic reforms, and a place where Marxian thoughts of development are highly debated across the ruling as well as labour trade unions. The land reforms and universalisation of public health and education in the state has made tremendous changes in the livelihood conditions of both the rich and poor. The changes that happened due to various socio-economic and political conditions has pushed people to migrate for better livelihood. It is a general belief that those who could move out of the state or abroad could make better livelihood assets. In this paper, we explored the evidences of human assets in households using Kerala Migration Surveys, and argue that this preposition is not completely true. In case of health assets, non-migrant households are better than migrant households, even though they are advanced in other capital. It may be a reflection of the strong presence of public health care system build by the government over the years. It reiterates the significance of state interventions in public health care for all section, particularly the poor; in a highly profit-motive cooperate world.

Shibinu S in his chapter 'Role of Institutional Governance in the Rehabilitation and Development of Return Emigrants of Kerala' tried to find out how emigration and the socio-economic status of the returnees are correlated and also to diagnose what are the factors which have positively influenced the post-emigration success of the returnees and their households. It also traces the alternatives which would enhance the chance of a return to the Gulf by recognizing the role of institutional good governance. The research on the rehabilitation and welfare of returning emigrants is a radical departure from neoclassical models (which conceptualize migration as income or utility-maximizing behaviour by individuals) to the realization of the need to articulate institutional governance measures to reduce

return propensities on the labour market of the state. The most basic thing is that the emigration from Kerala to the Middle East in the 1970s coincided with the operation of market forces, and the government was passive in this process. Except for the central government to formulate immigration rules and manage administrative procedures, the central government and state governments rarely interfere with the emigration process at any stage. But the concept of 'rehabilitation and development of return emigrants replaces the neo-classical market logic in governance and interventions. The study deliberately extends its scope of formulating a theoretical relationship between rehabilitation and the inclusive development of return emigrants.

The present book is a compendium of eleven studies related to the alternative perspectives of education, health and migration which are extracted from the Short-Term Projects, Internships and Associate Research Programmes offered by the Inter University Centre for Alternative Economics, University of Kerala. It is expected that this volume would be useful to the students of social science, researchers, academicians, policymakers and those interested in various aspects related to education, health and migration.

1
STEM Pipeline: How Far does Kerala Fare?

Christabell P J

Becker's (1964) human capital theory examines how the allocation of schooling time or resources impacts workers' future production through their skill level. Education is a crucial component of economic development, and intergenerational knowledge spill overs are critical. In a knowledge-based economic system, STEM (an acronym for science, technology, engineering, and mathematics) education plays a pivotal role. STEM had its origins in the 1990s at the National Science Foundation (NSF) of the US and has been used as a generic label for any event, policy, program, or practice that involves one or several of the STEM disciplines. The Economics and Statistics Administration (ESA) defines STEM jobs as professional and technical support occupations in computer science and mathematics, engineering, and life and physical sciences (Bybee 2010; Beede et al. 2001).

The "pipeline" metaphor is based on the notion that in order to produce enough graduates, there must be an adequate intake of students at the outset of their studies as well as retention of these students throughout their academic careers. The STEM pipeline is a crucial part of workforce development and workplace diversity that guarantees there are enough skilled people available to fill scientific and technical professions.

The chapter focuses on the different factors of higher education in STEM disciplines and how they impact the quality of students who pursue education in this wide setting, thereby affecting the STEM pipeline. The numerous aspects and critical variables that affect persons seeking higher education in STEM fields at Kerala's various colleges are discussed in detail in this chapter. The introduction is followed by a brief review of the literature.

The session on methods is followed by the findings and discussions. The last sessions concludes the chapter.

Review of Literature

In his study, Arcidiacono (2003) found that the quality of college influences an individual's expected earnings attended, the major pursued, the individual's measured math and verbal abilities, the individual's expected grades based on the school and major pursued, and other relevant individual characteristics such as gender. It is clearly recognized that education has a causal influence on people's transitions from work to unemployment.

Aside from that, education helps jobless workers re-enter the workforce (Riddell 2011). Individuals' present and anticipated wages are determined by their educational backgrounds. Individuals like work more than others, according to their respective abilities and other unique traits, according to studies.

According to Pantic (2007), the United States has to develop a STEM pipeline that runs from pre-kindergarten to college and then into the industry. International competition, he claims, exacerbates the gap between supply and demand for STEM personnel. To lead the global knowledge-based economy, the country must invest in K-12 science and math education, mentoring initiatives, and retention programs. According to research conducted by the National Science Foundation (NSF), three variables contribute to developing a solid pipeline for STEM employment. Early exposure to STEM fields through role models and mentors, good K-12 math and science preparation, and effective college retention programs are just a few of them.

STEM education needs to possess two critical resources: state-of-the-art facilities and trained educators to transfer focused knowledge in enough numbers. While the former incurs heavy financial investment, the lack of latter continues to be a significant reason why the Indian education sector, overall, continues to operate inefficiently.

DeCoito (2014) pointed out that students' lack of interest in math and science necessitates better classroom teaching techniques and chances to illustrate real-world applications and potential jobs. A vital goal of the STEM pipeline is to help students recognize the links between STEM education and future employment prospects.

Salzman (2013) argues that data does not appear to support allegations of labor shortages or an apparent inability of the market to create enough workers. Assessing the supply and demand for STEM professionals necessitates a more comprehensive examination of the context and evidence. The government has been accused of failing to address the lack of STEM employees by neglecting to take action. According to some, STEM is a "leaking pipeline," with students abandoning college because it is too harsh or unprepared. However, proponents of supply crisis allegations go even farther, claiming that STEM disciplines are in short supply "pipeline that is leaking " According to one analyst, Russia's nuclear weapons development necessitates the creation of a new "Sputnik moment."

Methods

The chapter addresses the following research questions: What role do institutions promote higher education in STEM fields? What social, demographic, and geographic variables influence students' decision to pursue higher education in STEM fields? What are the study provisions and study conditions existing in the higher education institutions for the STEM graduates? What are the aspirations regarding the opportunities in the STEM related fields as far as the STEM graduates are concerned? What is the level of participation in scholarly activities by the STEM graduates? What are the sources of Academic information to STEM graduates? To discover answers to the questions, primary data were collected from 366 students pursuing higher education in STEM areas - BSc, MSc, and BTech/MTech – at various universities/colleges in Kerala. The data were analysed using tools such as chi-square, ANOVA and factor analysis.

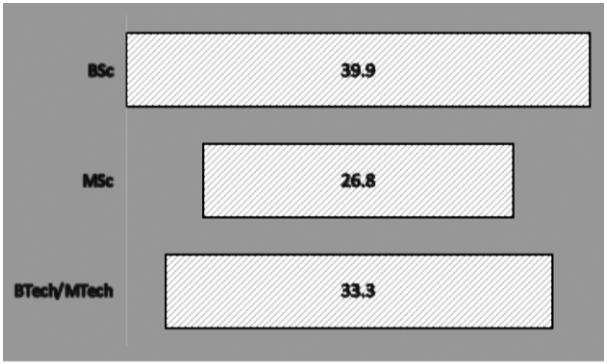
Findings and Discussions
Profile of Respondents

For the present study, 366 undergraduate and postgraduate students who pursue higher education were interviewed based on a proportional sampling technique. These students are either belong to the major universities - University of Kerala (UoK), Cochin University of Science and Technology (CUSAT), University of Calicut (UoC), Mahatma Gandhi University (MGU), Kannur University (KU), and APJ Abdul Kalam Technological University (KTU). A good share of the students is selected from the major colleges affiliated to these universities who pursue either their BSc/MSc degree or BTech/MTech degrees.

STEM Subjects Opted for

The students studying in different institutions were divided into three significant fields to analyze the primary data. The data show that the highest share of respondents (n=146) is from BSc, constituting around 39.9 per cent of the total students. The second-highest number of respondents is from BTech/MTech subjects (122), with a share of about 33.3 per cent (Figure 1.1). The least number of respondents (98) is from MSc, who constitute only 26.8 percent.

Figure 1.1: Profile of Respondents



Source: Field Survey, 2019-2020

The subjects coming under BTech/MTech are Applied Electronics And Instrumentation Engineering, Chemical Engineering, Civil Engineering, Computer Science And Engineering, Computer Software, Electrical Engineering, Electrical and Electronics Engineering, Electronics and Communication Engineering, Electronics and Media Technology, Geotechnical Engineering, Information technology, Mechanical Engineering, and Structural Engineering and Construction.

For BSc and MSc, subjects found to be studied by the students are Bio-Technology, Biochemistry & Molecular Chemistry, Biodiversity Conversion, Botany, Chemistry, Computational Biology, Computer Applications, Computer Science, Data Analytics, Earth Science, Electronics, Geology, Machine Design, Mathematics, Genetic and Plant Breeding, Statistics, Optoelectronics, Physics, Statistics With Data Analytics, Statistics With Specialisation In Data Analytics and Zoology.

Type of Institutions Opted for

Students who opted for different Programs have varied options for the type of institutions they choose to study. There is a plethora of institutions that cater to the varied needs of the students in the state of Kerala. Many of them are in the government sector, some are in the aided sector, and yet another type of institution works in self-financing mode. Table 1.1 gives a vivid picture that the students are almost equally distributed among the different types of institutions, with 36.6 per cent in government, 33.6 per cent in the aided sector, and 29.8 per cent in self-financing institutions. This demonstrates that the quality of education offered by both government and aided schools is high and that it has not deterred people from achieving success later in life. The chi-square results show an association among the programs and the type of institutions under the study as the p-value is less than .05.

Table 1.1 Type of Institutions Opted by the Students

Type	Programs			Total	χ^2 (p-value)
	BSc	MSc	BTech/ MTech		
Government	38 (10.4)	66 (18.0)	30 (8.2)	134 (36.6)	62.880 (.000)
Aided	66 (18.0)	18 (4.9)	39 (10.7)	123 (33.6)	
Self-financing	42 (11.5)	14 (3.8)	53 (14.5)	109 (29.8)	
Total	146 (39.9)	98 (26.8)	122 (33.3)	366 (100.0)	

Source: Field Survey, 2019-2020

Demographic Characteristics of Students

While exploring the data a little deeper, some interesting facts emerge. It is generally observed that within the different universities/colleges, the composition of students who pursue their studies in diverse areas differs widely. The demographic characteristics of students give an idea of the background of the students who opted to study in the STEM fields.

Gender

Even though the representation of females varies across the institutions, one can observe prominent domination of females in all the programs under consideration. Of the total students, 60.7 per cent are females, and the rest are males (Table 1.2). When it comes to gender differences, it is worth noting that there is not much of a difference between the two. This paints a very clear picture of women in Kerala participating in higher education on par with males. The chi-square results show a significant association among the programs the students choose based on gender.

Table 1.2 Type of Institutions Opted by the Students vs. Program of Study

Gender	Programs			Total	$\chi 2$ (p-value)
	BSc	MSc	BTech/ MTech		
Female	95 (26.0)	75 (20.5)	52 (14.2)	222 (60.7)	28.164 (.000)
Male	51 (13.9)	23 (6.3)	70 (19.1)	144 (39.3)	
Total	146 (39.9)	98 (26.8)	122 (33.3)	366 (100.0)	

Source: Field Survey, 2019-2020

Age

Age is the most important demographic characteristic which affects the educational activities of a person. Age determines how one conceptualizes the problems around them in the world, collects information, organizes the information and experiences, and acts upon it. Thus, it all depends on age. When one looks at the demographic characteristics of the students, from the point of view of age, it is found that the majority of the students are found to be in the age interval between 18 and 25.

Table 1.3: Age of the Students

Program	Min	Max	Range	Median	Mean	SD	F (P-Value)
BSc	18	25	7	21	20.98	1.791	43.908 (.000)
MSc	21	30	9	23	22.97	1.495	
BTech/ MTech	18	30	12	23	22.34	1.785	
Total	18	30	12	22	21.97	1.906	

Source: Computed

When it comes to the field of study, the highest mean age (22.97) is to be found with the PG, and the lowest could be seen with the UG programs (20.98). While comparing among the programs, the MSc (Table 3) has the most significant number in

the highest age group. The BSc has the most important number of students in the lowest age group of 18-25. The SD for BSc is found to be less compared to other fields of study, which shows that the variability is less when it is compared to the different areas of study. After graduation, some students try to find some odd jobs or engage in some temporary assignments. This makes them enter the field of postgraduate late, which is evident from the high proportion of PG students in the higher age groups. The ANOVA test proves a variability within the field of study with the p-value is less than 0.05.

Social Characteristics of Respondents

While looking from the societal perspective, the students' religious and community background is one of the most important factors determining their participation in higher education.

Religion

The primary survey results show that the students who identified themselves as belonging to the Hindu Community are found to be 69 per cent. This participation is very high compared to other religions, and it is natural in the socio-cultural context of Indian society. When the composition of the sample is analyzed, it is seen that 17.3 per cent are Christians.

Table 1.4: Religion vis-à-vis Programs

Religion	Programs			Total	$\chi 2$ (p-value)
	BSc	MSc	BTech/ MTech		
Hindu	102 (28.0)	67 (18.1)	83 (22.8)	252 (69.0)	.424 (.980)
Muslim	21 (5.5)	13 (3.6)	17 (4.7)	51 (13.7)	
Christian	24 (6.6)	19 (5.2)	20 (5.5)	63 (17.3)	
Total	146 (40.1)	98 (26.9)	120 (33.0)	366 (100.0)	

Source: Field Survey, 2019-2020

The concentration of Muslims in the sample is far less at 13.7 per cent. Even though there are many affirmative actions taken up, the current Muslim population in the higher education sector, especially in the STEM-related areas, is still low. Using the chi-square Test, a study of the religious characteristics of pupils was done. The test was used to see if there was a link between the program of study and religion. We accept the null hypothesis that both variables are independent since the p-value (0.98) is higher than the significant threshold (0.05). As a result, it demonstrates there is no link between programs and students' religious backgrounds.

Community

The students belong to several social categories, including Scheduled Castes (SC), Scheduled Tribes (ST), Other Backward Classes (OBC), Other Eligible Communities (OEC), and the General category. When examining the representation of social groupings, the OBC category has the most significant proportion (78.6 per cent). With 8.2 per cent, students in the SC category come in second.

With 1.6 and 4.1, the ST and OEC categories have the smallest number of students in the sample. The Three socially backward and socially disadvantaged social groupings (SC, ST, and OEC) account for roughly 15 per cent of the total respondents. While using the chi-square test, it is shown that there is a significant relationship between the students' community and the programs. In the chi-square test, the p-value (0.001) is less than the significant level (0.05), which in turn has not accepted the null hypothesis, and thus both the variables are independent.

Table 1.5: Community vis-a-vis Programs

Community	Courses			Total	χ^2 (p-value)
	BSc	MSc	BTech/ MTech		
SC	7 (1.9)	18 (4.9)	5 (1.4)	30 (8.2)	25.794 (.001)
ST	4 (1.1)	0 (0.0)	2 (0.5)	6 (1.6)	

OEC	7 (1.9)	2 (0.5)	7 (1.6)	16 (4.1)	
OBC	119 (32.7)	74 (20.3)	93 (25.5)	286 (78.6)	
General	10 (2.5)	4 (1.1)	14 (3.8)	28 (7.4)	
Total	146 (40.1)	98 (26.9)	120 (33.0)	366 (100.0)	

Source: Field Survey, 2019-2020

On the one hand, most of the respondents are from the OBC and general populations, which reflect society's political and social power structure. The OBC and general groups own many management schools and colleges in various regions of the state. As a result, students from different groups in Kerala can graduate and take advantage of the institutions' chances. At the same time, government-enforced reservation policies aided disadvantaged groups in gaining access to additional possibilities in the competitive world of education.

Merits during the Study

Financial assistance based on performance, achievement, or other factors boosts the students who pursue STEM education. The funder makes no particular requirement that the funds be used for educational purposes. It is only to encourage the student in their studies. Departments and schools, for example, recognize pupils during end-of-year award ceremonies. At that moment, certificates are usually handed over to pupils.

Scholarship

A scholarship is a monetary reward to students who wish to continue their education at a college, university, or other intellectual institution. Approximately 18 per cent of the students who responded to the study admit that they have received some type of scholarship (Table 1.6).

Table 1.6: Scholarship vis-à-vis Programs

Responses	Programs			Total	χ^2 (p-value)
	BSc	MSc	BTech/ MTech		
Yes	30 (8.2)	29 (8.0)	8 (2.2)	67 (18.4)	19.622 (.000)
No	116 (31.9)	69 (19.0)	112 (30.8)	297 (81.6)	
Total	146 (40.1)	98 (26.9)	120 (33.0)	366 (100.0)	

Source: Field Survey, 2019-2020

Some of the scholarships the students avail belongs to E Grantz, Higher Education Scholarship, Indira Gandhi Scholarship, INSPIRE, KPCR, MCM scholarship, University Merit Scholarship, Moulana Azad Muslim scholarship, OBC post metric scholarship, Prathibha scholarship, Suvarna Jubilee, SEBC, Summonathi, Vidya Samunnathi, XSA scholarship, etc. The chi-square results show that there is an association between the programs and the responses.

Mobility

The notion of mobility in education refers to people's social mobility from one social stratum to another due to the development brought about by education in their lives. However, this part focuses solely on people's physical mobility, fuelled by a desire for higher education and access to prestigious universities. Access to education was examined from the supplier's perspective, whether the government or the private sector gave it. In contrast, mobility was discussed from the perspective of the individual who used the service.

Place of Residence

Table 1.7 shows that 64.3 per cent of the total sample hail from rural areas. This demonstrates that Kerala's rural districts have a distribution of higher education institutions that is comparable to that of metropolitan areas. Hence it is found that the distribution of educational institutions (universities and colleges) in Kerala is well established, whether in rural or urban areas. The chi-

square results show that the association between place of residence and the programs is has some association.

Table 1.7: Place of Residence

Place of Residence	Programs			Total	χ^2 (p-value)
	BSc	MSc	BTech/ MTech		
Rural	100 (27.5)	70 (19.0)	65 (17.9)	235 (64.3)	8.078 (.018)
Urban	46 (12.6)	30 (8.0)	55 (15.1)	131 (35.7)	
Total	146 (40.1)	98 (26.9)	120 (33.0)	366 (100.0)	

Source: Field Survey, 2019-2020

Distance from Home

Yet another indicator which used to measure the mobility of the students is that of the distance from home to the institution. The highest mean is found to be with MSc programs (105.67 km) where the students have to travel for more distance to find a program of their choice. The students who pursue the BTech/MTech degrees have the lowest mean (31.51 km) with the lowest standard deviation (67.647 km). The median distance is also low for BTech/MTech students (15 km) followed by the BSc students (16 km). The ANOVA results also show that there is variation among the different programs.

Table 1.8: Distance from Home (in Km) to the Institution

Pro-gram	Min	Max	Range	Median	Mean	SD	F (P-Value)
BSc	2	500	498	16.00	44.31	95.503	16.947 (.000)
MSc	1	540	540	35.50	105.67	131.830	
BTech/ MTech	1	546	545	15.00	31.51	67.647	
Total	1	546	546	18.00	56.61	103.472	

Source: Computed

Place of Stay

The place of stay during their studies plays a significant role in pursuing the same. Approximately 70 per cent of the total respondents stay at home while the rest stayed in the College Hostel, University Hostel, Private Hostel, and used Paying Guest facility. The chi-square test shows that there is an association between the programs and the responses.

Table 1.9: Place of Stay

Hosteller	Programs			Total	$\chi 2$ (p-value)
	BSc	MSc	BTech/ MTech		
Yes	20 (5.5)	65 (17.6)	26 (7.1)	111 (30.2)	80.272 (.000)
No	126 (34.6)	34 (9.3)	95 (25.8)	256 (69.8)	
Total	146 (40.1)	98 (26.9)	120 (33.0)	366 (100.0)	

Source: Field Survey, 2019-2020

Study provision and Study Conditions in STEM Higher Education

Excellent conditions both inside and outside lecture classrooms are most important for a student. The current section gives a detailed analysis of how the perceptions of the existing study provisions and study conditions in STEM higher education from the point of view of the students. The descriptive statistics presented in Table 1.10 prove that the rank for all the statements is pretty high, i.e., the mean value is less than 2.5. the overall feeling of the students regarding the courses offered, programs they have chosen, quality of the study materials, evaluation methods, extra-curricular STEM activities, etc., provided to them.

Table 1.10: Study Provision and Study Conditions: Descriptive Statistics

Study provision and Study Conditions	Very good	Good	Don't Know	Bad	Very Bad	Mean	S D
Course content	133 (36.3)	214 (58.5)	14 (3.8)	5 (1.4)	0 (0.0)	1.70	.607
Variety of courses offered	138 (37.7)	181 (49.5)	36 (9.8)	11 (3.0)	0 (0.0)	1.78	.739
Design of degree program	106 (29.0)	195 (53.3)	41 (11.2)	23 (6.3)	1 (0.3)	1.96	.823
Opportunity to choos courses and areas of specialisation	124 (33.9)	173 (43.3)	43 (11.7)	22 (6.0)	4 (1.1)	1.93	.890
Practical emphasis of teaching and learning	108 (29.5)	168 (45.9)	52 (14.2)	33 (9.0)	5 (1.4)	2.07	.958
Quality of technical equipment	100 (27.3)	180 (49.2)	42 (11.5)	38 (10.4)	6 (1.6)	2.10	.971
Research emphasis of teaching and learning	87 (23.8)	175 (47.8)	60 (16.4)	30 (8.2)	14 (3.8)	2.20	1.017
Testing/grading system	77 (21.0)	177 (48.4)	58 (15.8)	41 (11.2)	13 (3.6)	2.34	1.533
Provision of work placements and othe work experience	88 (24.0)	146 (39.9)	71 (19.4)	40 (10.9)	21 (5.7)	2.36	1.254
Equipment and stocking of libraries	112 (30.6)	178 (48.6)	43 (11.7)	22 (6.0)	11 (3.0)	2.02	.968
Chances to participate in research projects	90 (24.6)	144 (39.3)	72 (19.7)	43 (11.7)	17 (4.6)	2.33	1.108
Teaching quality	122 (33.3)	187 (51.1)	27 (7.4)	22 (6.0)	8 (2.2)	1.93	.917
Supply of teaching material	107 (29.2)	202 (55.2)	31 (8.5)	24 (6.6)	2 (0.5)	1.94	.829
Academic advice offered in general	101 (27.6)	197 (53.8)	39 (10.7)	24 (6.6)	5 (1.4)	2.00	.877
Assistance/advice for your final examination	104 (28.4)	199 (54.4)	32 (8.7)	27 (7.4)	4 (1.1)	1.98	.876
Opportunity of out-of-class contacts with teaching staff	102 (27.9)	184 (50.3)	29 (7.9)	41 (11.2)	10 (2.7)	2.11	1.021
Contacts with fellow students	131 (35.8)	150 (41.0)	38 (10.4)	17 (4.6)	30 (8.2)	2.08	1.176
Chance for students have an impact on university policies	73 (19.9)	124 (33.9)	92 (25.1)	39 (10.7)	38 (10.4)	2.58	1.218

Source: Computed

For identifying the main factors determining study provisions and study conditions, factor analysis was applied to the response provided by the respondents, as shown in Table 11. Factor analysis is usually conducted for analyzing correlations between variables and reducing them into fewer factors to explain the original data more economically. Two stages of factor analysis are performed here, namely the Factor Extraction process, which decides upon the number of factors to be extracted from data. The second stage of Factor analysis employed is the Rotation of Principal components, whereby the extracted factors are titled.

A Rotated Component Matrix is used in this stage to analyze and interpret the factors. The factor matrix represents the factor loadings of each variable on the extracted factors. The high loading factors are identified and titled. Values close to one represent high loadings, and those close to zero represents low loadings. The Kaiser-Meyer-Oklin Measure of sampling adequacy and Bartlett's Test of Sphericity have been applied to test whether the relationship among the variables is significant or not.

Higher values of the Kaiser-Meyer-Olkin (KMO) test of sampling frequency (.905) indicate that the correlation between the pairs of variables is explained by other variables, and thus the factor analysis is considered to be appropriate for this model. The Bartlett's Test of Sphericity for women entrepreneurship intention, approximate Chi-square 3213.400 with degrees of freedom 153 and $P<0.05$, show patterned relationships between the items, and the correlation matrix measures significantly make the factor analysis appropriate.

Table 1.11: Study Provision and Study Conditions: Factor Analysis

KMO and Bartlett's Test				
Kaiser-Meyer-Olkin Measure of Sampling Adequacy				**.905**
Bartlett's Test of Sphericity	Approx. Chi-Square			**3213.400**
	df			**153**
	Sig.			**.000**
Rotated Component Matrix[a]				
Statements	Factors	Component		
		1	2	3
Course content	Course specific	**.685**	.164	.161
Variety of courses offered		**.745**	.219	.108
Design of degree program		**.801**	.172	.090
Opportunity to choose courses and areas of specialisation		**.732**	.199	.116
Practical emphasis of teaching and learning		**.646**	.422	.118
Quality of technical equipment		**.556**	.317	.361
Research emphasis of teaching and learning		**.428**	.407	.452
Testing/grading system		**.400**	.088	.413
Teaching quality	Teaching and evaluation	.177	**.658**	.327
Supply of teaching material		.194	**.764**	.222
Academic advice offered in general		.281	**.763**	.155
Assistance/advice for your final examination		.299	**.768**	.153
Opportunity of out-of-class contacts with teaching staff		.179	**.627**	.245
Provision of work placements and oth-er work experience	Extra-curricular activities	.345	.335	**.464**
Equipment and stocking of libraries		.174	.228	**.710**
Chances to participate in research projects		.259	.405	**.522**
Contacts with fellow students		-.035	.123	**.826**
Chance for students to have an impact on university policies		.161	.248	**.765**

Eigenvalues	7.617	1.694	1.158
Per cent of total variance explained	42.316	9.410	6.434
Cumulative per cent of the variance explained	42.316	51.727	58.160
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 15 iterations.			

Source: Computed

Eighteen factors determining study provisions and study conditions were identified. The respondents were asked to express their level of opinion on the influence of each of these factors on a five-point Likert scale. Factor loadings in the rotated component matrix show that the first factor strongly loads study provisions and study conditions on eight items. The highest loading is .801 for the Design of the degree program, and the minimum loading 0.4 for the Testing/grading system. The second factor in study provisions and study conditions loads on three variables, the maximum loading for Assistance/advice for your final examination is .768, and the minimum loading for the Opportunity of out-of-class contacts with teaching staff is .627.

The factor analysis extracted three components significant to study provisions and study conditions, namely; Course-specific, Teaching and evaluation, and Extra-curricular activities. These factors account for about 58.160 per cent of the variance in the data. Course-specific factor comprises of nine items. The Eigen value for the same factor is 7.617, which indicates that this factor contains very high information than the other factors. This factor provides the maximum insights of elements influencing study provisions and study conditions in the study area. The second factor, namely; Teaching and evaluation for about 9.410 per cent of the variance. The Eigen value for this factor is 1.694. The last factor, namely; Extra-curricular activities for about 6.434 per cent of the variance. The Eigen value for this factor is 1.158.

Participation in Scholarly Activities

Participation in scholarly activities helps the students to update with the latest developments in the STEM fields. The activities

such as attended workshop with school students, attended workshop with a public group, attended drop-in activities, and attended public debate or discussion got a mean value less than two which gives an impression that these activities are less attended by the students who participated in the survey. On the other hand, the activity on 'Attended Lecture/Talk to college students' has been participated by a majority of the students, and its mean value is more significant than three (Table 1.12).

Table 1.12: Participation in Scholarly Activities: Descriptive Statistics

Scholarly activities	Never	Once	2-3 times	4-5 times	More than 5 times	Mean	S D
Attended Lecture/Talk to college students	97 (26.5)	50 (13.7)	63 (17.2)	31 (8.5)	125 (34.2)	3.10	1.626
Attended Lecture/Talk to a public group	159 (43.4)	61 (16.7)	70 (19.1)	39 (10.7)	37 (10.1)	2.27	1.376
Attended Workshop with school students	218 (59.6)	70 (19.1)	45 (12.3)	16 (4.4)	17 (4.6)	1.75	1.120
Attended Workshop with a public group	226 (61.7)	56 (15.3)	50 (13.7)	18 (4.9)	16 (4.4)	1.75	1.133
Attended Drop-in activities (e.g., at a science festival or similar public event)	183 (50.0)	78 (21.3)	60 (16.4)	28 (7.7)	17 (4.6)	1.96	1.179
Attended Public debate or discussion	226 (61.7)	66 (18.0)	43 (11.7)	19 (5.2)	12 (3.3)	1.70	1.073

Source: Computed

The high value of KMO Test of Sampling Adequacy (.795) indicates that the correlation between pairs of variables explained by other variables and factor analysis is appropriate to this model. The Bartlett's Test of Sphericity for push factors with Chi-square = 1024.622 and degrees of freedom 15 with $P<0.05$ shows a patterned relationship between the items.

Table 1.13: Participation in Scholarly Activities: Factor Analysis

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**.795**
Bartlett's Test of Sphericity	Approx. Chi-Square	**1024.622**
	df	**15**
	Sig.	**.000**

Rotated Component Matrix[a]	
Statements	Component
	1
Attended Lecture/Talk to college students	.623
Attended Lecture/Talk to a public group	.800
Attended Workshop with school students	.743
Attended Workshop with a public group	.839
Attended Drop-in activities (e.g., at a science festival or similar public event)	.816
Attended Public debate or discussion	.754
Eigenvalues	3.519
Per cent of total variance explained	58.642
Cumulative per cent of the variance explained	58.642
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.	
a. Rotation converged in 15 iterations.	

Source: Computed

Only one factor is extracted out of the six variables. This factor account for about 58.642 per cent of the variance in the data. The Eigenvalue for the factor is 3.519, which show that this factor has a powerful influence on the analysis.

Academic Information

The current section is on the ways in which the information regarding academic activities is gained by the different respondents. The lowest mean value (Table 1.14) is found to be seen in the case of the statement 'Personal contact' (2.22), and the highest mean value is for the 'National Conference' (3.61).

Table 1.14: Academic Information Pathways: Descriptive Statistics

Information Pathways	At least once a week	1-5 times a term	1-2 times a year	Less than once a year	Never	Mean	SD
Personal contact (i.e. meeting an advisor, other tea-chers or experts)	149 (40.7)	102 (27.9)	37 (10.1)	43 (11.7)	35 (9.6)	2.22	1.341
International Conference	19 (5.2)	52 (14.2)	91 (24.9)	94 (25.7)	110 (30.1)	3.61	1.199
National Conference	16 (4.4)	56 (15.3)	106 (29.0)	80 (21.9)	108 (29.5)	3.57	1.186
Printed publicity	34 (9.3)	68 (18.6)	70 (19.1)	74 (20.2)	120 (32.8)	3.49	1.356
Emails	94 (25.7)	87 (23.8)	64 (17.5)	46 (12.6)	75 (20.5)	2.78	1.473

Source: Computed

Factor loadings in the rotated component matrix show that the only factor strongly loads information pathways on five-factor items. The highest loading is .918, and the minimum loading is .414. The only factor significant to information pathways was extracted out of the five variables. These factors account for about 59.576 per cent of the variance in the data. The eigenvalue for the element is 2.979, which shows that this factor has a very significant influence on information pathways (Table 1.15).

Table 1.15: Academic Information Pathways: Factor Analysis

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**.771**
Bartlett's Test of Sphericity	Approx. Chi-Square	***923.716***
	df	**10**
	Sig.	**.000**
Rotated Component Matrix[a]		
Statements	Component	
	1	
Personal contact (i.e., meeting an advisor, other teachers or experts)	.414	
International Conference	.877	
National Conference	.918	
Printed publicity	.855	
Emails	.681	
Eigen values	2.979	
Per cent of total variance explained	59.576	
Cumulative per cent of the variance explained	59.576	
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.		
a. Rotation converged in 15 iterations.		

Source: Computed

Suggestions for Improvement

A set of variables were given to express the opinion of the students in the various disciplines. A descriptive statistical analysis was conducted and was presented in Table 1.16. the highest mean value was found to be given for the statement ‘Academic, and personal support for students (4.4), and the least mean value is received by the statement ‘Collaboration with other higher education institutions’ (4.13). Most of the variables

have an agreement of more than 80 per cent, which gives strong support given by the respondents.

Table 1.16: Suggestions for Improvement: Descriptive Statistics

Suggestions for improvement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Mean	S D
Collaboration with other high education instituteions	6 (1.6)	8 (2.2)	37 (10.1)	195 (53.3)	120 (32.8)	4.13	.805
Facilities and resources in universities to be enhanced	0 (0.0)	18 (4.9)	19 (5.2)	194 (53.0)	135 (36.9)	4.22	.756
Research collaboration and links with other institutions	1 (0.3)	3 (0.8)	39 (10.7)	193 (52.7)	130 (35.5)	4.22	.686
Better Learning environment is needed	0 (0.0)	6 (1.6)	21 (5.7)	187 (51.1)	152 (41.5)	4.33	.659
Better Research environment is needed	4 (1.1)	11 (3.0)	22 (6.0)	204 (55.7)	125 (34.2)	4.19	.766
Connection between teaching and research from school level	3 (0.8)	5 (1.4)	30 (8.2)	190 (51.9)	138 (37.7)	4.24	.728
Study structure to be revised	5 (1.4)	19 (5.2)	17 (4.6)	189 (51.6)	136 (37.2)	4.18	.847
Curriculum/syllabus must link with innovation	9 (2.5)	5 (1.4)	24 (6.6)	178 (48.6)	150 (41.0)	4.24	.833
Cooperation with other subjects, programmes inside university	4 (1.1)	9 (2.5)	24 (6.6)	200 (54.6)	129 (35.2)	4.20	.758

Management and organisation of university must be improved	3 (0.8)	12 (3.3)	45 (12.3)	178 (48.6)	128 (35.0)	4.14	.813
Internationalization of curriculum and research activities	2 (0.5)	4 (1.1)	40 (10.9)	168 (45.9)	152 (41.5)	4.27	.740
Practical training periods (including placements in industry)	3 (0.8)	5 (1.4)	17 (4.6)	161 (44.0)	180 (49.2)	4.39	.716
Appropriateness of the learning outcomes attained by graduates	4 (1.1)	5 (1.4)	28 (7.7)	181 (49.5)	148 (40.4)	4.27	.751
Employability of Research scholars must be enhanced	4 (1.1)	4 (1.1)	18 (4.9)	162 (44.3)	178 (48.6)	4.38	.730
Academic and personal support for students	2 (0.5)	5 (1.4)	15 (4.1)	166 (45.4)	178 (48.6)	4.40	.686

Source: Computed

To find out the suggestions for improvement, 15 attributes were identified. The Rotated component matrix for the variables relating to the scope for improvement is given in Table 2.17. The KMO test of Sampling Adequacy (.916) indicates that the correlation between pairs of variables explained by other variables and factor analysis is appropriate to this model. The Bartlett's Test of Sphericity for push factors with Chi-square = 4048.436 and degrees of freedom 105 with $P<0.05$ shows a patterned relationship between the items.

Factor loadings in the rotated component matrix show that the first factor strongly loads scope for improvement on five-factor items. The highest loading is .813, and the minimum loading .772. The second factor loads on five variables. Maximum

loading is .85 and minimum loading .565. The third factor loads on five variables, maximum loading is .761, and minimum loading is .519.

Three factors significant to push motivation, such as Academic support, Learning support and Interconnections, were extracted out of the 18 variables. These factors account for about 72.419 per cent of the variance in the data. The eigenvalue for the first-factor Academic support is 8.127, which shows that this factor significantly influences the scope of improvement compared to other factors. The second most crucial factor, called Learning support, account for about 11.362 per cent variance with Eigenvalue 1.704. The third-factor Interconnec-tions account for 6.877 per cent of variance with Eigenvalue 1.032.

Table 1. 17: Suggestions for Improvement: Factor Analysis

KMO and Bartlett's Test				
Kaiser-Meyer-Olkin Measure of Sampling Adequacy				**.916**
Bartlett's Test of Sphericity	Approx. Chi-Square			**4048.436**
	df			**105**
	Sig.			**.000**
Rotated Component Matrix[a]				
Statements	Factors	Component		
		1	2	3
Internationalization of curriculum and research activities	Academic support	**.772**	.257	.222
Practical training periods (including placements in industry)		**.813**	.118	.268
Appropriateness of the learning outcomes attained by graduates		**.782**	.226	.262
Employability of Research scholars must be enhanced		**.778**	.223	.327
Academic and person-al support for students		**.789**	.216	.236
Collaboration with other higher education institutions	Learning support	.143	**.850**	.149

Facilities and resources in universities to be enhanced		.146	**.807**	.336
Research collaboration and links with other institutions		.225	**.850**	.209
Better Learning environment is needed		.304	**.751**	.162
Better Research environment is needed		.363	**.565**	.510
Connection between teaching and research from school level	Interconnections	.416	.423	**.519**
Study structure to be revised		.193	.477	**.687**
Curriculum/syllabus must link with innovation		.327	.148	**.761**
Cooperation with other subjects, programmes inside university		.240	.208	**.746**
Management and organisation of university must be improved		.350	.195	**.735**
Eigen values		8.127	1.704	1.032
Per cent of total variance explained		54.181	11.362	6.877
Cumulative per cent of the variance explained		54.181	65.542	72.419
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 15 iterations.				

Source: Computed

Conclusion

A detailed analysis on the students who are currently doing their graduation in STEM fields was conducted. It is found that the higher education institutions work under government, aided and self-financing institutions do play a great role in catering to the needs of the graduates in STEM fields. The various social, demographic, and geographic variables influence students' decision to pursue higher education in STEM fields. The study

provisions and study conditions existing in the higher education institutions for the STEM graduates include course specific, teaching and evaluation as well as extra-curricular activities. the issues with the curricula and General study process exist in the higher education institutions for the STEM graduates include career related, profession related, academic related and personal.

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2
New Skills for New Jobs Level of Awareness about Employability Skills among the Graduate Students of Kerala

Gipson Varghese

The need to approach education holistically has become central to India's growth and skill development scenario. Increased attention has been devoted to building up a knowledge society, whereby human resource should be equipped with interpersonal and employability skills. Current educational practices and training methods, which is being implemented in our society for a long period of time, has to have an alternative mode of functioning today, because post-Covid scenarios call for more individual based and technologically supported education and training. Policies have to an alternative way of thinking to revitalise the basic and university systems. Moreover, skill based learning modules are of great relevance and new strategies are required to focus more on employability skills among young graduates, who will become part and parcel of the emerging world workforce.

Human resource capacity enhancement and development of functional capabilities in new work related skills, per say employability skill improvement, has become a major challenge across organizations and institutions, especially from emerging and developing economies (Narula and Aithal, 2018). It is very important to see whether the available human resources (college graduates) are ready to meet the requirements of the companies/organisations that they are going to work. It is also important to compare and evaluate whether they are skilled and prepared enough to accept a job offered to them. These type of analysis will help the policy making process to better plan and prepare the future workforce.

A study done by Pay Scale in 2017 among 63924 managers and 14167 graduates shows that certain soft and hard skills are missing among young graduates (Strauss, 2018). Many other studies and reports (ILO, 2011 and Pereira, E T, 2020 et.al; Sanghi, S, 2004) also mention about the lack of skills for aspirants who are selected/employed by the companies. Graduates therefore are expected to be skilled and well trained to be competitive in today's changing world of work. The present scenario, especially the post–Covid scenario, has made it so crucial to have relevant skills for the jobs that are available and emerging in the labour market. At the same time, there are challenges for prospective employees to find jobs. Moreover, global current economic crisis has made it more difficult for graduates to find a job and the number of unemployed graduates is on the rise.

Business and educational leaders are also of the opinion that students/graduates should have employability skills and competences to get right jobs. They go on sharing the ideas of higher education reforms but, it is a fact that graduates, although after graduation, they lack required skills which impede them to get jobs. Additionally global economic crisis has worsened the recruitment process and each day job positions are decreasing in all sectors. But not much proper contemplation is done to include requirements of the world of work in the curricula and there is lack of initiatives to implement programs to impart skills and competences that are required by employers. It is evident that there are fundamental flaws in the educational practices which do not recognize current requirements.

Amidst all these challenging situations, college students are not well aware about requirements of the global business community. Most of them are not properly aware or informed about the employability skills. Lacking such required standards will make graduates unsuccessful during their time of transition from academic environment to the world of work. Therefore it is very important to understand whether the graduates are ready to be employed with required skills and competences. Since this preparedness will only be successful through a collaborative approach between teachers, employers and graduates, a study is

very important to understand what are those skills, competences and abilities that are required by the world of work. This study is an attempt to find out those employability skills and try to get a unified opinion about the importance of those skills from teachers, employers and graduates.

For better educational performances and practices, curricula need to be revised frequently and include what is required by the world of work. Higher education, in addition to providing general knowledge to their graduates, should be responsible for training individuals to enter the labour market. What is required at present is the Academia Industry Collaboration, which is normally knows as University Business Collaboration. The need for this collaboration is seen from the changes that are undertaken in the current educational system, both in central as well as state. The New Educational Policy of the central government calls for a change in the higher education scenario and the opportunities given to the learner. There are also significant changes taken in the curricula restructuring of the University-based education system in the state also.

The changes that are taking place in the educational scenario are mainly based on the changing requirement of the labour market. Since the ultimate aim of educational system is to equip the learner, the learning system also requires changes accordingly. Instead of scores (final marks or ranks) from the certificate and degree programs, industry specific skills (employability) are required. Employability, which is a concept that refers to the quality or possibility of having a job (Jose, L, 2014), has become, and is likely to continue to be, a major issue for a variety of stakeholders in higher education (Holmes, Leonard, 2013 and Jose, L, et al. 2014). A learner has to gain required skills for a successful entry and participation in the labour market, and there should be ways and means to impart how those skills are fully explored and appropriated by active participation in the market. The current educational system requires a rapid change and studies are very crucial to propose policy changes.

In today's dynamic market situations, the business world requires talents to innovate new business models because the market is rapidly changing with digital innovations. At the same time business needs and expectations are also changing. Degrees/Certificates, Grade Point Average (GPA) scores, University rank, and top job experiences is considered to be the 'qualifications' that mattered most to employers and recruiters—and, the same is regarded as important among parents, students, and prospective jobseekers. But these qualifications are not really considered and evaluated at the present employment scenario. Over the past several decades, these qualifications have determined how marketable a jobseeker was, as well their likelihood of getting a (good) job. But that kind of market dynamics are rapidly becoming a thing of the past, and the scenario is changing through the convergence of digital innovations, business needs, and shifting expectations. Therefore, instead of having 'a list of qualifications', prospective employees are expected to have a set of generic, subject specific and soft skills that are demanded by the world of work.

The workplace is on a continuous change. The employers look for people who can be the right fix to their respective job roles and they expect the perspective employee should posses skills and competences to fulfill expected outcomes. GPA/Degree Scores, for example, is a score that says nothing interesting or useful about potential future hires. Score attained by an individual is an average of someone's scholastic achievement. In most of the companies, placements are made on the basis of interviews where candidates are required to perform and qualify practical sessions. Additionally final selection will be determined only if the candidate is successful in performing the given task during their final stage. At the same time, employers insist that prospective candidates do not require high academic scores but they should posses some basic employability skills.

The selection processes have changed as mentioned above due to various reasons. Due to slow economic growth and pandemic effects, there are less job opportunities but more number of candidates, so selection process has changed. Technology has

changed the entire working conditions, so less people are required to the job positions, therefore companies will select those who can do the job perfectly or will select those who can be the right fix. Additionally, sector-wise specifications are gaining importance and automation, machine learning and artificial learning do most of the jobs, so an employee is expected to perform and do the job by utilizing the technology and with multi-tasking.

So it is clear that a prospective employee should be 'employable' possessing required skills and competences. At the same time, it is very important to note that employers are changing their traditional recruitment policies and implement new ways to identify future hires. Companies like Ernst & Young, reformed its approach for recruitment of its graduate scheme and decided to lower its required grades after research on its selection process and found no correlation between successes at university and in subsequent qualifications (Financial Times, Jan-2021).

Increasing rate of unemployment make clear that there is gap between the skills and competences for students (prospective employees) who are currently finishing their degree programs and what is expected from them (in terms of employability skills) by the world of work. Although there are less job opportunities, evidences show that there are several job positions vacant due to lack of qualified candidates. It is also known that several candidates those who have applied for jobs lack required skills/competences/abilities. Therefore, it is a high time to look into the matter and identify the gap. From a general understanding, it is evident that students are not given enough opportunities to learn or acquire such employability skills during their degree programs. Additionally, curricula of the degree programs are prepared in acquiring knowledge only with less time span. As a result, students are not even able to understand the objectives of their selected study programs.

Students are not employable because they do not get any exposure to workplace experiences or any kind of practical experiences. Therefore, they won't be able perform anything

(even basic computer skills) during their selection process. Degree curricula should include enough time to practice what they have learnt from theory classes, which is not happening in most of the degree programs.

Based on the above facts, an alternative way of approach is being selected for this study to find out the gap between the demand for and supply of employability skills of degree students of our universities. Job specifications are being changed and new jobs are arising, therefore such skills are required to perform those jobs. The study wish to make an effort to understand the awareness about these new skills (employability skills), and find out alternative ways and approach to fill the gap in higher education programs.

Statement of the Research Problem

Today we are facing major societal changes driven by exponential advancement in digital technologies. In addition to rapid technological changes, natural disasters and calamities, when seriously affecting the large part of the society, will cause unpredictable problems. Most notably, COVID-19, the global virus, has seriously affected all walks of life and losing many human lives. All these challenges and problems have now become usual to mankind and now are in phase to overcome all these hurdles. When we analyse from a socio-economic perspective, this pandemic has affected all functions of socio-economic systems, which will have far reaching consequences in the areas of economic progress, production process, employment, education etc. Although countries and states are recovering with stable health and medical care facilities, more efforts are needed to support the healthy recovery of the economies.

During these difficult times, we experienced major changes in the education sector. There will be measurable impact in higher education during this decade and beyond. One of the supporting factors leading to economic resilience and faster recovery is the education and job creation. The COVID -19 pandemic now threatens the educational outcome and resulting consequence in

the labour market. These changes have to be studied deeply and find out solutions.

The pandemic seriously affect the educational sector by closing the schools and colleges of the entire world. Even before the pandemic, the education and labour market was in a drastic change, demanding graduates to possess skills and competences that go beyond qualification and experience. Although causes serious problems, this pandemic could be help us to counter the shocks and turn crisis into opportunities. Towards a better future, graduates have to be informed and prepared to face the challenges and explore opportunities of the future. Skills and abilities like, entrepreneurial mind-set, leadership, communication, social commitment, cooperation etc, would be greatly appreciated by the future labour market and employers would prefer individuals who would support the companies to seize the opportunities. Therefore it's a high time for graduates to be prepared and employable.

As socio-economic and political conditions have totally changed due to this unexpected global virus, jobs created and skills required in the future will have to be assed from a post-COVID scenario. Therefore, in this project, I would like to understand the demand for employability skills and awareness of such skills among graduates of the universities of Kerala state. Additionally, the project will also evaluate academic programs offered by the universities and understand the preparedness of graduates for the jobs.

Objectives

Although teaching and learning process will not have a drastic change, it is of great importance how graduates would focus their future studies and career. Hence, an investigation into the academic programs and skills and competences already included in the syllabus would help us to understand the current scenario of graduate employability. At the same time, an evaluation of the present labour market will also provide a clear picture for the demand for skills and competences. Following are some of the specific objectives of this project;

- To find out a set of employability skills and competences
- To bring out a set of 15 important skills ranked by various stakeholders participating in this study
- To assess and evaluate awareness about employability skills among academicians, graduates and employers
- To compare and evaluate the ranking order and preferences of skills for relevant stakeholders

Methodology

In this study, employability is seen as resulting from a set of choices and options regarding skills and experiences which are more or less valued by the labour market. The exploration of employability skills is a social process which involves multiple actors such as students, higher education institutions and employers. Taking this into account, it is important to clarify and go deeper in the concept of employability in its multiple analytical dimensions (Jose L, 2014). The methodology adopted in the study will look into the following aspects in detail and will collect relevant data to substantiate facts and figures brought out from the literature review.

(a) Individual Employability- the ability of an individual to get and to keep a job, which depends not only on the reputation and quality of his skills, but also on other biographical factors, such as informal or non-formal training, or family and personal networks, or other sorts of social capital.

(b) Higher Education Institutional Employability - the ability of an institution to increase the probability of their graduates to find a job given its reputation, the reputation of the training it provides, and its capacity to cooperate with professional bodies and the labour market itself.

(c) Employers/Labour Market - Contextual Employability - the better or worse adaptation, due to external events, of specific degrees or fields of study to the needs of the market in specific times, industries, and territories that affect the action of individuals and institutions.

To be more scientific and practical, employability skills will be identified from various studies and reports and that list of skills

will be substantiated by academicians, employers and students. This reiterates the need for a new and systematic approach to bridging the graduate skills gap. Another important scope of the study is to provide insight into the importance given to generic skills in curricula in higher education institutions.

Based on a preliminary literature review, it is noted that the studies and reports on graduate skills are mostly on single dimensional. Most of the studies and reports share results based on data collected either by collecting data/information only from one or two types of students (like employers/company representatives and/or students/graduates). The present study wishes to try an alternative approach by considering three dimensional data collection and plans to include students, academicians and employers. These respondents are considered to be very important for studies like this because their roles and duties reflect the same fields, which is the subject matter of this study. From higher education point of view, academicians train students to acquire skills that are expected by employers. Therefore, we have to consider students/graduates, academicians and employers as important stakeholders of the study. This three-dimensional approach would enrich the findings in confirming the required employability skills.

The study will focus on a specific form of work-related learning – employability skills - which combines learning at class and expectations from the world of work—and explore whether students, teachers and employers believe these skills enhance their employability skills. A multi-dimensional approach would confirm that the list of skills that are suggested would be important from their own perspectives and can be ranked accordingly. The result thus obtained would help the study to suggest a set of employability skills, which would be verified and required by the world of work.

This study will begin with an extensive literature review to demonstrate the relevance of the topic of the study and find out previous studies done in the area of study. Thus the list of employability skills will be confirmed with the help of secondary data collection. Once the literature review and secondary data collection is finalised, a questionnaire will be

structured and a pilot study will be initiated. For this study, a sample of 300 students from different universities were considered for the study. Students of colleges affiliated to the University of Kerala, Mahatma Gandhi University, University of Calicut, University of Kannur and Department of Economics and Management studies of Cochin University Science and Technology responded to the data collection. Additionally, 30 Academicians and 15 Employers will be considered for the study to support the arguments in favour of employability skills. The 25 Selected Skills (Model of Six Employability Skills) developed in the third chapter was sent to all students and other stakeholders. The list of 25 skills was sent to all these contacts through emails. The data thus collected is evaluated and analysed with suitable methods.

Scope of the Study in Alternative Framework

One of the important scopes of this study is to understand the nature and extent of the graduate skills gap in higher education system in Kerala. As noted above various studies and report show that there is a gap between what is taught in classroom and what is required for the world of work. Therefore, it is important to see whether there is any scope to fill the gap. The study intends to find out how this gap is occurred and how can this problem be solved. An alternative approach in finding required skills is planned and data will be collected to substantiate those mentioned gaps.

Acquiring employability skills during study programs are very important at this current scenario so that students can apply the skills and knowledge gained during their degree program in a life-like context with practical ideas. This type of learning process will enable learners on how to use these approaches successfully in their future workplaces. There are various studies and reports mentioning about students' perceptions and experiences about various degree programs (most of these studies have done majorly in computer application/computer science based study programs – Adamson, B, 2007 et.al and Ananiadou K, 2009 et al). However, none of these studies focus on students' perceptions about the development of their employability skills during degree programs. Existing research

suggests that work-related learning is effective at exposing students to various employability skills such as teamwork, communication, problem solving and self-management (Susan, et.al, 2011). So this study with an alternative approach is expected to find high ranked employability skills, which could be included in the curricula.

Results and Discussion

It was found out from the literature review and discussions that there is a greater importance for graduate (employability) skills and at the same time there is the lack of their essential skills in labour market. Increasing individual employability has become crucial in every sector. In addition to the economic crisis and the Covid-19 pandemic, the whole world has suffered loss in every sector. One of the areas which was badly affected due to lockdown was the business sector and job market. Many businesses have shut down and many lost jobs. In addition to the loss of jobs, creation of jobs positions were very few, so that many job positions have lost its existence.

Although the entire business world faced negative growth, technology had a great breakthrough. All walks of lives and way of functions became technology supported. Two important sectors which were mostly supported by the technology were business and education sector. Although negative shocks reduced the business production sectors, service sector became very active. Similarly, all levels of education, from nursery level to higher education level, were fully functioned and supported with technology.

Amidst the positive and negative shocks, what was notable is the creation of new jobs and new skills to fulfil the requirements of the current labour market. Therefore, the topic of discussion in this study has become very relevant from various points of view. The findings and suggestions from this study would therefore help both the education as well as business sector to understand the reality. From this study, a confirmed set of employability skills was developed and the skills set shows what all categories are to be developed to be employable. The information gathered from the primary data reveals the fact that

all stakeholders considered in this study have their own preferences for skills and have ranked according to their evaluation. All those findings are shown and discussed in the following sections.

Importance of Employability Skills for the Job Market

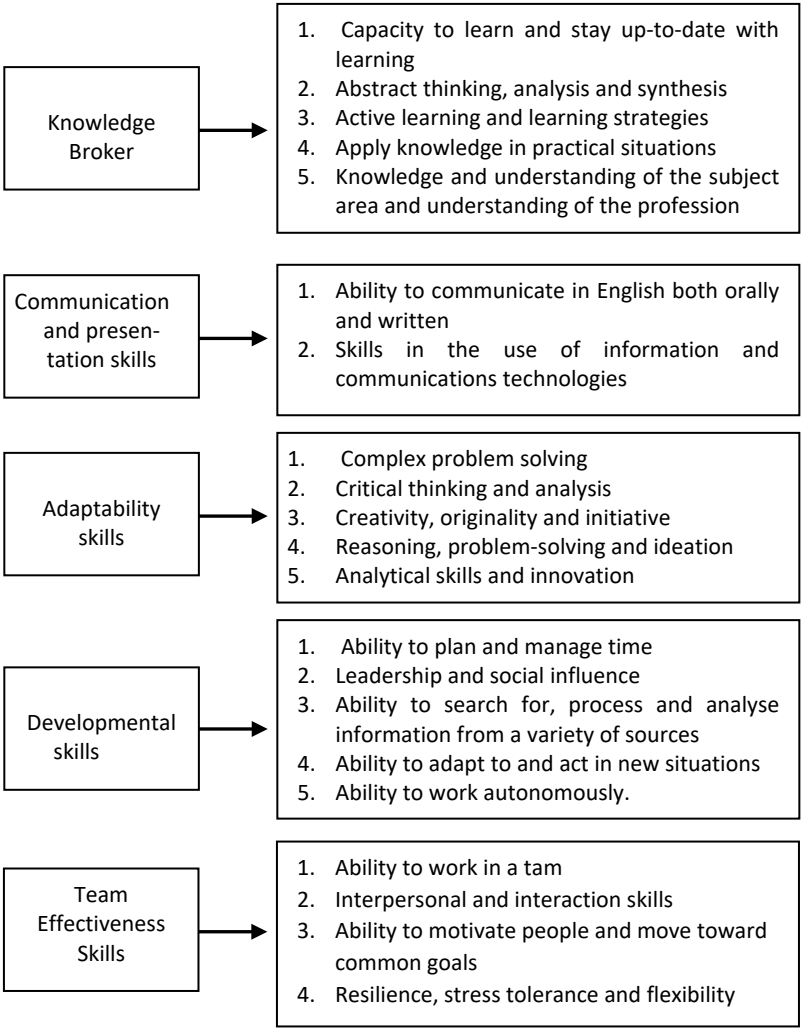
It has been seen from several studies and discussion that, in order to achieve advantages in the job market, graduates need to posses and acquire a combination of skills, both soft and hard skills. In addition to educational qualifications, graduates are required to have the combination of soft and hard skills. This trend is becoming very evident in today's job market. Therefore, it was very urgent for the study to define and categorize skills, abilities and competences in such way that they are considered as employability skills for the world of work. With an intention to form a set of skills which are meaningful to today's world of work, both soft/transferable and hard/core skills were identified through the literature review.

From the literature review, various groups of skills – referred as employability skills- were identified. But a common set of skills were not identified, therefore the study intended to make a list of skills and competences which could be considered as employability skills. Interestingly, the study could categorize 25 selected skills into a group of employability skills. A list of skills were identified and matched with the labour market needs but 25 most matched skills were selected.

Before the list of 25 skills were confirmed, selected skills were categorized and each group of skills were given a theme/ heading. The theme/heading explain the nature of skills included in each group. The result thus obtained is given below as the Model of Six Employability Skills. The following model is the result of the exercise carried out in the part of literature review, in which six categories of skills were defined and then the skills were identified to match those categories. The result thus obtained was helpful for the study to carry out the further analysis of the study. Although there are different ways to define the employability skills, the study would like to consider the results obtained, with a combination of both soft and hard

skills. Six categories and skills included in those categories are varied and are specific. These skills sets were formed in such a way that a graduate should have personal and professional skill acquisition

Figure 2.1 The Model of Six Employability Skills


Knowledge Broker
1. Capacity to learn and stay up-to-date with learning
2. Abstract thinking, analysis and synthesis
3. Active learning and learning strategies
4. Apply knowledge in practical situations
5. Knowledge and understanding of the subject area and understanding of the profession
Communication and presen-tation skills
1. Ability to communicate in English both orally and written
2. Skills in the use of information and communications technologies
Adaptability skills
1. Complex problem solving
2. Critical thinking and analysis
3. Creativity, originality and initiative
4. Reasoning, problem-solving and ideation
5. Analytical skills and innovation
Developmental skills
1. Ability to plan and manage time
2. Leadership and social influence
3. Ability to search for, process and analyse information from a variety of sources
4. Ability to adapt to and act in new situations
5. Ability to work autonomously.
Team Effectiveness Skills
1. Ability to work in a tam
2. Interpersonal and interaction skills
3. Ability to motivate people and move toward common goals
4. Resilience, stress tolerance and flexibility


Life
Skills
1. Commitment to the conservation of the environment
2. Ability to act with social responsibility and civic awareness
3. Ability to show awareness of equal opportunities and gender issues.
4. Appreciation of and respect for diversity and multiculturality

The first three categories, such as Knowledge Broker, Communication and Presentation Skills and Adaptability Skills are more or less individualistic in nature. Individualistic means that it can be acquired or learned with individual efforts. Personal characteristics or abilities, mentioned in terms of soft skills, are highly considered as important from the part of employers. Three other categories of skills were highly demanded by various stakeholders. Although not much practically oriented, categories such as Developmental Skills and Team Effectiveness Skills are considered to have a practical knowledge in respective areas. Apart from educational qualifications, employers demand that graduates should posses skills and abilities which can be performed in a given situation as well as in team works. Employers prefer that the newly selected employee should posses such skills that are already performed in the existing team in the workplace. Therefore, employers even measure those skills and abilities during the selection process.

Ranking Order of Employability Skills

One of the important objectives of this study was to find out the ranking order of skills. As it was mentioned in the previous chapter, the same list of skills was given to three different stakeholders and was asked to rank them according to their preferences (the result thus obtained is given below).

Ranking Order of Employability Skills (by all Respondents)

1. Capacity to learn and stay up-to-date with learning
2. Apply knowledge in practical situations
3. Ability to adapt to and act in new situations.
4. Ability to plan and manage time
5. Ability to motivate people and move toward common goals.
6. Skill in the use of information and communication technologies
7. Knowledge and understanding of the subject area and understanding of the profession
8. Ability to communicate in English both orally and written.
9. Ability to work in a team
10. Creativity, originally and initiative
11. Analytical skill and innovation
12. Resilience, stress tolerance and flexibility
13. Reasoning, problem-solving and ideation
14. Abstract thinking, analysis and synthesis
15. Ability to search for, process and analyse information from a variety of sources.
16. Active learning and learning strategies
17. Complex problem solving
18. Critical thinking and analysis
19. Leadership and social influence
20. Ability to work autonomously
21. Interpersonal and interaction skills
22. Commitment to the conservation of the environment.
23. Ability to act with social responsibility and civic awareness
24. Ability to show awareness of equal opportunities and gender issues.
25. Appreciation of and respect for diversity and multiculturality.

The above result, the raking order of skills, clearly shows some relevant information from the part of all stakeholders. The ranking order is considered as their preferences for skills based on the market relevance. Academicians have thought about the need for such skills thinking that students would be able to get a job/career if they are able to acquire those selected skills.

Students believe that they should be able to obtain such skills through their curricular and extra-curricular activities. Employers have opined confirming that they expect a student to join a position by having those important skills.

Considering the responses from three selected stakeholders, some important underlying dimension in skill selected in evident, they are as follows;

- All stakeholders have considered skills in the category of Knowledge Broker. Skills like 'capacity to learn and stay up-to-date with learning' and 'apply knowledge in practical situations' became the first and second ranked skills. This result shows that skills that learning capacity and knowledge acquisition are the most important skills, without which one should not get a good career/future.
- An interesting dimension from the ranking of skills is that, Developmental Skills which are mostly of hard skills is being considered as very important by respondents. Skills like 'ability to adapt and act in new situations' and 'ability to plan and manage time' became the third and fourth ranked skills. This indicate the fact that an individual should be capable to develop certain personal characteristics to become employable. It is clear that a person should have certain level of practical abilities in addition to knowledge.
- In continuation to the above dimensions from the ranking order, an important fact that helps us to relate is the ranking of the fifth skill, i.e, 'ability to motivate people and move toward common goal'. This indicates a newly arising phenomenon of having skills from the category of Team Effectiveness. Respondents are of a clear picture that an individual should be prepared and capable of being a part of the team, wherever and in whichever position they are employed.
- Once we have got a clear picture about the relevance for soft and hard skills from the raking, the next category of skills is of great importance, i.e, Communication and

Presentation skills. ‘Skills in the use of information and communication technologies’ and ‘ability to communicate in English both orally and written’ are raked as sixth and eighth. This clearly means that together with the above mentioned skills, an individual should have ICT knowledge and practical skills and should be able to use English for communication and presentation.

A Skill Profile for Employability

One of the important achievements of this study is to recommend a skill profile for employability. At this time of global recession, the business opportunities are shrinking and perspective employees would be badly affected. While there are losses of jobs in every sector, new jobs and opportunities are arising and new skills are required to face this cycles of ups and downs. Therefore, it is very important to know how an individual can get a job and what are the skills, abilities and competencies expected from the world of work. Although there are several suggestions regarding the skill set required to find a job, the present study tried to consolidate opinions and preferences from very important stakeholders who are well connected with the skill development. As one of the findings, the study proposes the following skills to form a Skill Profile for Employability.

Table 2.1 Ranking Order of Employability Skills of Respondents

Ranking Order of Skills (15 skills ranked by all respondents)
1. Capacity to learn and stay up-to-date with learning
2. Apply knowledge in practical situations
3. Ability to adapt to and act in new situations
4. Ability to plan and manage time
5. Ability to motivate people and move toward common goals
6. Skills in the use of information and communications technologies
7. Knowledge and understanding of the subject area and understanding of the profession
8. Ability to communicate in English both orally and written
9. Ability to work in a team
10. Creativity, originality and initiative
11. Analytical skills and innovation
12. Resilience, stress tolerance and flexibility
13. Reasoning, problem-solving and ideation
14. Abstract thinking, analysis and synthesis
15. Ability to search for, process and analyse information from a variety of sources

The above mentioned skill profile can be considered important especially for curricular re/structuring. The skills mentioned above are those 15 important skills that are ranked as very important. As it was mentioned above, the respondents have considered today's challenging job market and have marked their ranking, proposing a skill-set for employability. We get the significance of this profile when the skill profile is compared with the model of six employability skills. This 15 Skills Profile is composed of those most important skills consist of 5 important categories, such as Knowledge Broker, Adaptability Skills, Developmental Skills, Team Effectiveness Skills and Communication and Presentations Skills.

The skill profile of employability becomes more meaningful when we situate the 5 categories and skills with a model of an individual who is ready to join the job market. A qualified individual enters the job market, whom is taught/trained by academicians, and the employer is expecting certain level of

skills and competences. In such a scenario, the above mentioned skill profile suits well and make the individual an employable person. If we imagine that the individual has this suggested skill profile, s/he is knowledgeable, is very creative and innovative who will be able to contribute progress to the position, has very good personal abilities to easily adapt to any kind of situations and make herself/himself better, is a team player who is fit for any kind of job roles in this areas of expertise and has communication skills. This would be a profile expected by an employers, would like to be trained by academicians and who can be successful.

Important Skills by Stakeholders

Another important objective of this study was to find our stakeholders perspectives on employability skills. For that, the study has considered three important stakeholders who are involved differently in skill development arena. Academicians are those who plan and execute curricular activities which include skill development and skill formation, students/ graduates are those who are being trained/guided/formed by academicians and employers receive those people who are trained by academicians. Therefore, each of them have their specific expectations and vision about a skills required to get jobs. The ranking order by each of them is shown in the following table. Let us now look into the ranking order separately by academicians, students and graduates.

In the opinions of academicians, an individual should, first of all, have knowledge domain to be considered as employable. For them, a person should have capacity to learn and be able to apply knowledge in the area of her/his expertise. Together with these skills, an individual should posses adaptability and developmental skills and should posses communication skills. From the result obtained, it is observed that academicians give importance to soft skills and academic skills as important, although other kills are considered as important for employability.

Table 2.2 Important Skills by Stakeholders

Ranking Order of 10 Important Skills by Respondents
Academicians
1. Capacity to learn and stay up-to-date with learning
2. Ability to communicate in English both orally and written
3. Apply knowledge in practical situations
4. Skills in the use of information and communications technologies
5. Ability to adapt to and act in new situations
6. Ability to plan and manage time
7. Ability to motivate people and move toward common goals
8. Knowledge and understanding of the subject area and understanding of the profession
9. Creativity, originality and initiative
10. Analytical skills and innovation
Students
1. Capacity to learn and stay up-to-date with learning
2. Ability to motivate people and move toward common goals
3. Ability to communicate in English both orally and written
4. Ability to work in a team
5. Abstract thinking, analysis and synthesis
6. Ability to search for, process and analyse information from a variety of sources
7. Critical thinking and analysis
8. Ability to plan and manage time
9. Apply knowledge in practical situations
10. Ability to adapt to and act in new situations.
Employers
1. Ability to plan and manage time
2. Knowledge and understanding of the subject area and understanding of the profession
3. Skills in the use of information and communications technologies
4. Capacity to learn and stay up-to-date with learning
5. Ability to adapt to and act in new situations
6. Ability to work in a team
7. Ability to motivate people and move toward common goals
8. Resilience, stress tolerance and flexibility
9. Reasoning, problem-solving and ideation
10. Apply knowledge in practical situations

On the other hand, it is interesting to see the ranking order of students, who are being trained and formed by academicians. The result shows that students also accept the fact that an individual primarily should have knowledge domain, but the results clearly indicates that an individual should also posses practical skills, such as skills in the categories of developmental and adaptability skills. Students opine that an individual would

be employable if s/he is prepared both with soft and hard skills. They also point out the relevance of team effectiveness skills for employability.

An important finding of the study is the ranking order of skills by employers. Since employers are those who receive individuals in their job market, their opinions have greater relevance. From the raking it is clear that employers also suggest the role of knowledge domain as the first criteria for employability. But what is more important and interesting is that they suggest having team effectiveness skills equally important as knowledge domain. According to them, an individual should be prepared and capable of being an active member of the team, if she/he has to be considered as employable.

The ranking order of skills by stakeholders separately gives a clear picture on the preferences for skills in different settings. It is important to note that each of these stakeholders had their own preferences on the skill set based on their understanding on employability skills. From the result, it was seen that view the role of skills in different manner. For instance, academicians give more importance to the knowledge domain skills acquisition, then suggesting being equipped with the other important skills. Employers, on the other hand, always have a preference for skills that would support team works, because they are of the opinion that students/graduates should have skills that can be positive for the profession and company that they would join.

One of the interesting dimensions that the study could find out was the ranking orders for skills by the students/graduates. Although there are few studies on skill profiling that would consider opinions from students group, the study understood the need for their opinions. Since students/graduates are the final results of skill acquisition and training programs, it was important for the study to understand their perceptions and expectations on skills that they are supposed to have while they look for opportunities. The study results have clearly indicated that they suggest a skill set that would reflect both the

expectations from employers and academicians. The results thus obtained show that employability skill set should include both soft skills (transferrable) and hard skills (practical).

Commonalities in Ranking between/among Stake Holders

An important objective of this study was to find out some common underlying dimensions regarding employability skills by different group of people. In order to understand those dimensions, the ranking order on skill by three selected stakeholder's group was compared. The results have clearly indicated some important dimensions/facts regarding the importance of certain skills. The results have depicted in the following table. The raking order for skills by stakeholder was compared and it was found that some skills were commonly ranked. These commonalities clearly show some specific preferences by each of them, that is why they have commonly ranked those skills. Let us now look into those specificities expressed through skills selected.

Table 2.3 Commonalities in Ranking between/among Stakeholders

Commonalities in ranking between stakeholders
Academicians and Employers
1. Skills in the use of information and communications technologies 2. Knowledge and understanding of the subject area and understanding of the profession
Academicians and Students
1. Ability to communicate in English both orally and written
Employers and Students
2. Ability to work in a team.

As seen above, there are mainly three types of commonalities regarding some skills. In the first case, the 'skills in the use of

ICT' is commonly preferred/ranked both academicians and employers. According to them, an individual should be proficient in ICT if they have to be considered as employable. It can be understood that employers show greater importance to the ICT proficiency and they would consider such candidates for jobs. Academicians are also in the same opinion regarding the ICT proficiency. For them, although candidates have good knowledge in skills, they should be capable of managing ICT. With regard to the 'knowledge and understanding of the subject area and understanding of the profession' both academicians and employers have same opinion. These ranking suggest that an individual should be good at the subject area s/he is interested and should have clear understanding about the profession in which s/he had got educational/academic qualifications (subject area).

Another important similarity which was observed from the data collected was about the importance for 'ability to communicate in English both orally and written. The ranking order was common for both academicians and students. It is quite interesting to note that students have considered English as an important language which is normally suggest by academicians only. Students have ranked because they might that have understood the need for an additional language (apart from mother-tongue) as prerequisite to be employable.

Yet another important commonality in ranking of skills was observed among employers and students on 'ability to work in a team'. Since employers and students are very closely related to the world of work, they are of the same opinion that teamwork skill is very important. This commonality suggests that although individuals would be good at subject knowledge, they should be ready to work in a team.

The above discussed results of common ranking of skills clearly give us an idea that the above mentioned four skills have been suggested as important, with an emphasis on the practicality related to those skills. Apart from having some common skills set, the results of commonality emphasis the need for having the

above said four skills for an individual to be considered as employable.

Conclusion

In this study, a detailed study on new skills for news jobs was carried out and to explore more on the theme of study, both literature review and primary data collection were carried out. One of the many successes of this study is that the study could conduct a scientific discussion and review on a current topic, which is gaining more importance day by day. Although with some limitations, the study could undertake more or less a detailed study with primary data collection. With both literature reviews as well as with primary data collection, the study could find out some important underlying dimensions, which were discussed above.

This study was successful in finding out its set objective. Most importantly, the study proposes a model of six employability skills. This model can be implemented and applied in various form in various settings. Since all these skills are general, this model can be used in all subjects. From a practical point of view, a model of employability skill is of great importance in order to set curricula for higher educational programs. Therefore, the model proposed by this study can be used by all educational institutions in the time of academic re/structuring.

From the primary data collection, many interesting observations were identified. An important feature of the study is that the study could follow a different way of approach in both primary as well as in secondary data collection. The data collection by including three important stakeholders (Academicians, Employers and Students) is a different approach, which is not commonly followed way of data collection. In many of the studies, a representation of any of these stakeholders is seen but not all these three stakeholders together. Therefore, all the findings of this study is of great relevance and is more practical.

The study observed the need for such approach in higher education scenario. There is a lack of directions in the way that

we could plan, include and implement skills and competences in the study program. The result obtained from this can solve many of such difficulties. If academicians are ready to follow the way that they have shown in the ranking order of skills, they can make successful study programs and students will have meaningful learning experiences. Employers have clear ideas on the skills set they require, therefore, educational programs can be planned and implemented in schools, colleges and universities by considering the skills set suggested by this study.

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3

Higher Education and Human Capital Utilization - Opportunities, Challenges and Constraints in Idukki District

Shyla Hameed

Human capital implies skills, capacities, and abilities possessed by an individual which enables him to earn. It is now universally recognized as the most fundamental of all economic resources. Higher education provides a strong foundation to these countries which are the late comers to the economic development. In the pursuit of development, primary education is absolutely essential for the base formation and higher education is much profound because it provides different opportunities to develop the nation. Studies revealed that higher education plays a crucial role in national development and socio-economic transformation of the society. It is an essential input for the formation of skilled manpower which is needed in crucial sectors of national development since it produces upward mobility and access to higher levels of economic activities for the weaker sections of the society.

Idukki is one of the educationally backward districts of Kerala. The history of educational development of the district is obscure and need special attention. Though the district was formed in 1972, attempts for its educational development started only recently. Before the formation of Wayanad district in 1980, Idukki was the most backward district in the field of education. At the time of the formation of Idukki district, schools were the major educational institutions in the district.. The economic status of the district depends mainly on agriculture, the chief occupation of the population. The large land holdings and favorable climatic conditions contribute substantially to the agricultural development of the district. A comprehensive package for higher education has not yet been formulated for the

backward districts especially the hilly regions of Kerala state. Strategic plans are urgently needed to strengthen higher education system of Wayanad and Idukki districts. On the basis of the general assessment, there are many problems related to higher education sector in Idukki district. There have been several other factors which are responsible for the backwardness of Idukki district. By finding solutions to their problems, the human resources here can be taken to higher levels and outshine their potential in different streams.

The people of Idukki district have been featuring several problems related to the inability to gain access to colleges and universities inadequate opportunities, traditional mindset of people and their obsessions, etc. This work, therefore, tries to examine the tribulations regarding access to higher education and human capital development. It also tries to identify the problems, and challenges confronting higher education and human capital development in Idukki district. The migrant district of Idukki is with a history of fewer than100 years. The cultural history of the hill station was formulated through agriculture and other stereotype farming and plantation works with a comparatively lesser labour cost. Their resistance and survival were physical rather than intellectual. But later in the last two decades of the past century the globalization and its bi-productive mechanism demanded a little more intellectual involvement in the sociological & developmental perspective of their livelihood. Higher education is a prerequisite for the production of highly competent experts, which in turn, contributes to the development of organizations and the economy at large.

Research Problem

Generally, there are many problems faced by the people of Idukki regarding their higher education opportunities. There exist big hurdles for accessing higher educational opportunities among the ‘high land’ people. Many people are depending on the agricultural sector. They have income constraints and occupational problems. Recent floods and landslides made their lives more difficult. The people of Idukki are deficient in some

general opportunities which are available and accessible in the other districts of Kerala. The geographical terrain is not conducive for the students in accessing the opportunities. Parents are reluctant to propel their children for higher education even in the nearest districts also. The higher education dropout rate is also very high. The socio-cultural precincts demanded the parents and students to indulge in the traditional agricultural sectors. So, the intellectual labourers and educated professionals from the Idukki district seem to be deficiently inhibited in the arena of the intellectual workforce of the present globalized world. This study focused on the constraints and challenges faced by the people who lived in the highland areas of Idukki districts and to what extend the wide opportunities acquired by them through higher education.

Objectives of the Study

1. To examine about the access and opportunities of higher educational facilities of Idukki district.
2. To analyze the socio-economic status of students/parents those who are enrolled in higher education
3. To assess the constraints and challenges faced by the students/parents in higher education
4. To analyze the higher educational attainment and human/ intellectual capital utilization in Idukki district.

Research Design and Sources of Data

. The high land and the plane land area were considered for data collection. For collecting data, samples were based on the students who have entered the higher education sector and those who have completed their higher education. Data is also collected from those students who were discontinuing their education (dropout). Only general education sector was analyzed. Two regions from Idukki district were selected: plane land and highland. (sample included one urban/plane land area– Thodupuzha and rural/high land areas like Devikulam, Udumbanchola, and Peerumade, Kattappana)

The higher educational institutions were selected from rural and urban areas. Six colleges from these regions were randomly

selected. Two colleges from urban/plane land area and four from rural/ highland area were preferred. Samples selected from different streams which includes BA/Bsc, MA/Msc/Bcom/ Mcomcourses. The sample selections of students were based on the proportion of intake and enrollment in the sampling institutions. Stratified random sampling method is used. The stratum is formed on the basis of the courses that the students have chosen. The study covered the students of both undergraduate and post graduate courses. The samples of 293 students were randomly selected. Data were also collected from the students who were completed their courses (Pass out students' survey). This data is necessary to understand their human capital utilization/ capability enrichment/the attainment of job opportunities they have achieved through the higher education process.

Literature Search

The concept of human capital refers to the fact that human beings invest in them, by means of education and training or other activities, which raises their future income by increasing their lifetime earnings. Economists were conscious of the importance of human resource development and capital value of human beings from the very beginning stage. One of the first attempts to estimate the money value of a human being was made around 1631 by Sir William Petty. The classical economists realized the importance of education in increasing the economic value of man. Adam Smith, philosopher as well as economist, penetrated the debate. Therefore from two sides, one from that of the reformer who wished to make education more efficient and other from that of the moralist and teacher who was concerned to discuss the ends of education. Smith fully recognized the role of education for the improvement of skill and awareness of youth, who would enter the labour force. He devoted a full article in Part III of Book V of his work 'the wealth of nations', published in 1776. He endorsed that education of common people required attention from the state. He observed 'the education of the common people is required perhaps in a civilized and commercial society.

In modern economic thought the concept of education is considered as a unique investment in human capital, in the present for the future. It has been identified as an important parameter for national development. The word “capital” refers to the reproductive power of natural and manmade producer goods. The concept of human capital refers to the fact that human beings invest in themselves, by means of education and training or other activities, which raises their future income by increasing their lifetime earnings. A number of classical economists notably among them Adam Smith (1937), pointed out that education helped to increase the productive capacity of workers, in the same way as the purchase of new machinery or Education and Economic Growth: other forms of physical capital, increased the productive capacity of a factory or other enterprise. Thus, an analogy was drawn between an investment in physical capital and an investment in human capital. Smith (1937) and Marshall (1930) envisioned education as a fixed capital in human resource and as a national investment.

The concept of human capital was not fully developed until 1960s when American economist Theodore Schultz analyzed educational expenditure as a form of investment (Schultz, 1961). The journal of ‘Political Economy’ in the United Sates published a supplement on “investment in human beings” in 1962 and Becker published a book with the title ‘Human Capital’(Becker, 1964, 2nd ed. 1975) which developed a theory of human capital formation and analyzed the rate of return to investment in education and training . Since that time the concept of human capital has dominated the Economics of Education and has a powerful influence on the analysis of labour markets, wage determination, analysis of economic growth, expenditure on health care and study of emigration.

Education and Economic Growth

The concept of education as an investment in human capital came into existence with the presidential address of Theodore Schultz, while addressing the American Economic Association in 1960. A more scientific and coherent theory on „Human capital“ was shaped by Schultz (1961, Becker (1964) and

Dension (1962). Their approach came to be known as “Human Capital Approach for Development” in Economics. Schultz pointed out that investment in man, like investment in property are ways of establishing additional income streams (Schultz, 1959). Hence, he advocated a higher priority for increasing investment in education and developed a human capital concept to quantify the contribution of education to economic growth. The students who enrolled in higher education have been faced different problems. This leads to a big hurdle in the utilization of their manpower and human capital in the developmental process.

Challenges and Constraints Faced by the Students and Parents in the Higher Education Scenario of Idukki District

Education is the most significant factor for the effective utilization of human capital. Education has become a vital element of the strong foundation of our modern society, major revenue of social mobility, a central agency of social distribution and subsequently to ensure better standard of living. Thus, it becomes a crucial part of every human being. For the large majority of the population from Idukki districts living in hilly (rural) areas were highly dependent on government-run or aided institutions for their educational purpose. But rural areas still countenance with various barriers that directly impact the higher educational enrollment rate. The meager incomes and social backwardness lead to their higher education opportunities taking in to backseat. Majority of the parents are working in plantation areas. Parents tend to see education as an expense rather than an investment. In higher education, lack of good institutes close by means students have to look at shifting to cities, which adds to their expenses. This leads to low rates of enrolment and higher dropouts. This chapter analyses the different problems faced by the students and parents of this district. The analysis of the data reveals that there are many constraints and challenges related to the access to higher education among the hilly regions of Idukki district.

Table 3.1 which shows the gender wise classification. The data reveals that 59.7 percentage and 40.3% of female students belongs to urban and rural division respectively. In case of male students 45.5 percentage and 54. 5 percentages has located in rural and urban area respectively. The sample taken for this study reveals that female student enrolment is much more in urban areas as compared with rural regions. As in the case of male student enrolments in higher educational institutions, the data shows that the percentage is better in rural (high range regions) areas.

Table 3. 1 Gender wise Distribution of Students

Gender		Location			Chi-Square
		Rural	Urban	Total	
Female	N	87	129	216	Value:4.689 p-value: 0.030
	%	40.3%	59.7%	100.0%	
Male	N	42	35	77	
	%	54.5%	45.5%	100.0%	

Source: Primary Survey, 2021

Table 3.2 APL and BPL Category of Students

Category		Rural	Urban	Total
APL	N	68	105	173
	%	39.3%	60.7%	100.0%
BPL	N	72	48	120
	%	60	40	100.0%

Source: Primary Survey, 2021

The income wise analysis shows that in the APL category 39.3 and 60.7 percentage the students who were enrolled in higher education institutions belong to rural and urban areas respectively. While in the case of BPL income group, most of the students were residing from rural regions of Idukki district. Here it reveals the income wise disparities existed in the high land and plane land areas of idukki district.

Table 3.3 Nature of Residential Buildings of Students

Types of Houses		Location		Total	Chi-Square
		Rural	Urban		
Nature of Residential Building	Hut	31	13	44	Value: 17.216 df: 2 p-value: 0.000
		70.5 %	29.5 %	100.0 %	
	Kutcha	34	38	72	
		47.2%	52.8%	100.0%	
	Pucca	64	113	177	
		36.2%	63.8%	100.0%	
Total		129	164	293	
		44.0%	56.0%	100.0%	

Source: Primary Survey, 2021

Table 3.3 shows the nature of the residential buildings that the students from rural and urban areas have resided in. There is a general remark that people have very minimum facilities in their houses in the high range areas, and most of the houses were fully or partially damaged. In this analysis, the data reveals the type of houses they reside. In rural areas, 70.5 percent of people are situated in the hut, and it is only 29.5 percent in urban areas. The student who belongs to Kutcha houses is 47.2 and 52.8 percentage in rural and urban areas respectively. In the case of Pucca house, it is only 36.2 percentages and 63.8 percentages in rural and urban areas respectively. There exist significant differences in the nature of houses in rural and urban areas of Idukki district.

Table 3.4 Educational Status of Parents

Literacy Rate			Location		Total	Chi-Square
			Rural	Urban		
Educational status of Parents	Illiterate	N	3	3	6	Value: 6.438 df:5 p-value: 0.266
		%	50.0 %	50.0 %	100.0 %	
	Primary	N	2	3	5	
		%	40.0 %	60.0 %	100.0 %	
	Secondary	N	56	51	107	
		%	52.3 %	47.7 %	100.0 %	

	Higher Secondary	N	44	61	105	
		%	41.9%	58.1%	100.0%	
	Graduation	N	17	36	53	
		%	32.1%	67.9%	100.0%	
	Post-graduation	N	7	10	17	
		%	41.2%	58.8%	100.0%	
Total		N	129	164	293	
		%	44.0%	56.0%	100.0%	

Source: Primary Survey, 2021

Table 3.4 reveals that majority of the parents of students have graduate and postgraduate qualification, 67 percentage of graduate parents belongs to urban regions of idukki district while 32.1 percentage parents are from rural areas of Idukki. Moreover the parents from rural and urban regions having postgraduate degree also.The statistical test result reveals that the differences are not significant. There exist slight differences in rural and urban areas of Idukki districts regarding the higher educational attainment of students and the educational status of parents. Parent's education is considered as one of the important factors to determine the children's education. There is a general argument that educational attainment of parents has a positive impact on their children's education.

Table 3.5 Type of Institutions

Classification of Institutions		Location			
		Rural	Urban	Total	P value
Government	N	110	129	239	Value: 2.100 df:1 p-value: 0.147
	%	46.0%	54.0%	100.0%	
Self-financing	N	19	35	54	
	%	35.2%	64.8%	100.0%	

Source: Primary Survey, 2021

In the above table, it is found that 46 percent of the students from the rural area have joined on government colleges and 54 percent of students from urban areas were taken admission in government colleges. Interestingly while analyzing in the self-financing sector 64.8 percentage of students from urban regions opted for self-financing colleges for their higher studies and 35.2 percent are from rural areas. There exist small differences between the rural and urban pupil regarding the selection of colleges for higher studies. The parents and students from rural areas opted for self financing colleges because of their eagerness to higher education. Therefore, in the absence of sufficient public institutions parents are forced to admit their children to self financing colleges even if their income is low. It is only because of their strapping desire to educate the children at any cost. It is found that among the students who are studying in the self financing colleges, most of them belong to rich and upper income groups. This indicates that the people who have more income can easily approach the self financing colleges for their children's education.

Table 3.6 Course wise Distribution

Courses		Rural	Urban	Total	P value
BA/Bcom	N	40	110	150	Value: 40.033 df:4 p-value: 0.000
	%	26.7%	73.3%	100.0%	
BSc	N	53	34	87	
	%	60.9%	39.1%	100.0%	
MA/Mcom	N	10	7	17	
	%	58.8%	41.2%	100.0%	
MSc	N	3	4	7	
	%	42.9%	57.1%	100.0%	
Other	N	23	9	32	
	%	71.9%	28.1%	100.0%	

Source: Primary Survey, 2021

Table 3.6 exhibits the different courses opted by the children in rural and urban regions of Idukki district. For BA/Bcom and Bsc courses 27.7 percentage and 73.3 percentage of students were

belonging to rural and urban areas of Idukki district respectively. For Bsc course 60.9 percentages of students, are from rural areas and 39.1 percentages of students are from urban areas. While considering post graduate courses MA/Mcom and Msc, 58.8 percentage and 41. 2 percentage of students are from rural and urban areas respectively. For Msc courses 42.9 percentage of students belongs to rural areas and 57.1 percentages of students belongs to urban regions of Idukki district. The other category includes the different courses like commerce, management studies and polytechnic courses. The tests result reveals that there exist significant differences in rural and urban areas regarding the selection of courses for higher education. The self-financing colleges were offering a variety of new gen courses, but their fees here are very high. The students from the remote areas and from low-income households of Idukki districts cannot afford such fees by the self-financing institutions.

Table 3.7 Stream of Education

Stream		Rural	Urban	Total	P value
CBSC	N	16	23	39	
	%	41.0%	59.0%	100.0%	
ICSC	N	2	4	6	
	%	33.3%	66.7%	100.0%	Value: 1.500
OTHER	N	27	37	64	df:3
	%	42.2%	57.8%	100.0%	p-value:
STATE	N	82	102	184	0.682
	%	44.6%	55.4%	100.0%	
Total	N	129	164	293	
	%	44.0%	56.0%	100.0%	

Source: Primary Survey, 2021

While analyzing the accessibility of school education of rural and urban students of different streams, it is found that 41 percentages of children were studied in CBSC stream from rural area and 59 percentage of students from urban regions. From the rural category of students 66.7 percentage of students were studied in ICSC and 33.3 percentage from rural regions. In rural areas of Idukki district majority of them opted state syllabus and govt/aided schools for their study. In urban regions most of them preferred CBSC and ICSC schemes.

Table 3. 8 Distance Between College and Home

Distance between College and Home		Location		Total	Chi-Square
		Rural	Urban		
1-5	N	19	33	52	Value: 21.825 df:4 p-value: 0.000
	%	36.5%	63.5%	100.0%	
5-10	N	15	25	40	
	%	37.5%	62.5%	100.0%	
10-15	N	10	37	47	
	%	21.3%	78.7%	100.0%	
15-20	N	36	34	70	
	%	51.4%	48.6%	100.0%	
>20	N	51	33	84	
	%	60.7%	39.3%	100.0%	
Total	N	129	164	293	
	%	44.0%	56.0%	100.0%	

Source: Primary Survey, 2021

In table 3.8, it is found that 60.7 percent of students from the rural area were more than 20 kilometer distance between college and their residents. In rural or high range regions of Idukki district, the students were facing many difficulties related to their traveling from their residence to colleges. The statistical test which also proves the differences in the rural urban regions of Idukki district regarding the transportation facilities. In the case of the students from the hilly regions of Idukki district does not have adequate transport facilities.

Table 3.9 Affordability of Hostel Fees

Hostel fee is affordable or not		Location		Total	Chi-Square
		Rural	Urban		
No	N	20	20	17	Value: 12.529 df:1 p-value: 0.000
	%	68.8%	30.76%	100.0%	
Yes	N	9	45	9	
	%	31.03%	69.23%	100.0%	
Total	N	29	65	26	
	%	100	100	100.0	

Source: Primary Survey, 2021

The above table shows that from the rural areas of Idukki district 68.8 percent of students were commended that the hostel fees were not affordable. The test result exemplifying the significant differences existed regarding the affordability of hostel fees among the hostel inmates of rural and urban areas of Idukki districts.

Table 3.10 Mode of Travel of Day Scholars

Mode of travel			Location		Total	Chi-Square
			Rural	Urban		
Mode of Travel	Bus	N	79	114	193	Value: 7.515 df:4 p-value: 0.185
		%	40.9%	59.1%	100.0%	
	Car	N	0	2	2	
		%	0.0%	100.0%	100.0%	
	scooter/ bike	N	19	19	38	
		%	50.0%	50.0%	100.0%	
	Walking	N	10	10	20	
		%	50.0%	50.0%	100.0%	
	Others	N	9	5	14	
		%	64.3%	35.7%	100.0%	
Total		N	117	150	267	
		%	43.8%	56.2%	100.0%	

Source: Primary Survey, 2021

Table 3.10 reveals the mode of transportation facilities availed by the students from rural and urban areas of Idukki district. In this analysis majority of students from rural and urban areas were opted general transportation facilities like bus and jeep services etc. the tests results which shows that there is no significant differences among the students from rural and urban areas of Idukki districts regarding the selection of transportation facilities.

Table 3.11 Distance to the Nearest Bus Stop

Distance to the nearest bus stop		Location		Total	Chi- Square
		Rural	Urban		
1 hour walk	N	3	0	3	Value: 16.599 df:4 p-value: 0.002
	%	100.0%	0.0%	100.0%	
10 minutes' walk	N	52	74	126	
	%	41.3%	58.7%	100.0%	
5 minutes' walk	N	36	67	103	
	%	35.0%	65.0%	100.0%	
Half an hour walk	N	34	22	56	
	%	60.7%	39.3%	100.0%	
More than 1 hour	N	4	1	5	
	%	80.0%	20.0%	100.0%	
Total	N	129	164	293	
	%	44.0%	56.0%	100.0%	

Source: Primary Survey, 2021

Table 3.11 shows the walking distance between colleges and residences of students. In this analysis, it exhibits that the students from rural areas of the Idukki district were walked to colleges for one hour and more than one hour. The tests result shows that there exists significant differences regarding walking distances between the students who were coming from rural and urban areas of Idukki district. The students from rural or high range regions of Idukki district residing in the hilly areas and lagging the basic facilities.

Table 3.12 Total Time for Travelling

Total time for Travelling		Location		Total	Chi- Square
		Rural	Urban		
<1 hour	N	66	121	187	Value: 23.269 df:3 p-value: 0.000
	%	35.3%	64.7%	100.0%	
1-2 hour	N	37	35	72	
	%	51.4%	48.6%	100.0%	
2-3	N	16	7	23	
	%	69.6%	30.4%	100.0%	
>3	N	10	1	11	
	%	90.9%	9.1%	100.0%	
Total	N	129	164	293	
	%	44.0%	56.0%	100.0%	

Source: Primary Survey, 2021

Table 3. 13 Problems Faced by Students

Problems		Location		Total	Chi-Square
		Rural	Urban		
Family issues	N	3	3	6	Value:2.107 df:5 p-value: 0.834
	%	2.3%	1.8%	2.0%	
Income constraints/ educational expenses	N	47	53	100	
	%	36.4%	32.3%	34.1%	
Lack of interest	N	9	15	24	
	%	7.0%	9.1%	8.2%	
Marriage	N	2	2	4	
	%	1.6%	1.2%	1.4%	
other reason	N	67	87	154	
	%	51.9%	53.0%	52.6%	
Parental attitude	N	4	1	5	
	%	2.4%	0.8%	1.7%	
Total	N	129	164	293	
	%	100%	100%	100%	

Source: Primary Survey, 2021

The table 3.12 discusses the travelling time of students from rural and urban areas of Idukki district. The 'P' value of the test result shows that there exists significant differences' regarding the time required for their travel to reach the educational institutions. More than 90 percent of the students from rural areas of Idukki district required three hours journey to reach their destination.

Table 3.13 shows that the different problems faced by the people in urban and rural areas. In this analysis 36.4 percent and 32.3 percent of people were facing income constraints and unaffordable expenses of higher education in rural and urban areas respectively. The analysis reveals that the students have other blockages in the completion of their higher education from rural and urban areas of this district. The other reasons includes the factors like Geographical divide, Locality, Social factors, Economic/ financial factors, Gender, Community and religion, Occupation of parents, Climate, Psychological factors (Emotional/anxiety, inhibitions etc.), Education of parents, Availability of educational institutions/ courses, Transportation problem, Gender, Rural urban divide etc.

Table 3.14 Awareness on the Employment Opportunities

Awareness on the Employment Opportunities		Location		Total	Chi-Square
		Rural	Urban		
No	N	48	44	92	Value: 0.785 df:1 p-value: 0.376
	%	34.1%	29.3%	31.4%	
Yes	N	85	116	201	
	%	65.9%	70.7%	68.6%	
Total	N	129	164	293	
	%	100.0%	100.0%	100.0%	

Source: Primary Survey 2021

The students from urban areas were more cognizant about the opportunities that can acquire from the higher educational scenario.

Table 3.15 Availability of Facilities

Satisfied with the Facilities Available			Location		Total	Chi-Square
			Rural	Urban		
Satisfaction	No	N	76	37	90	Value: 11.642 df:1 p-value: 0.001
		%	58.9%	22.6%	30.7%	
	Yes	N	53	127	203	
		%	41.1%	77.4%	69.3%	
Total		N	129	164	293	
		%	100.0%	100.0%	100.0%	

Source: Primary Survey, 202 Note: percent within Rural_Urban

The above table shows that there exists significant difference in the satisfaction level of students/parents regarding the facilities available in rural and urban areas of Idukki district. There exists a significant difference in the facilities available in rural and urban areas of Idukki district. In urban areas of Idukki district 77.4% of parents/students were satisfied with the facilities available and 58.9 percentage of people from rural areas were not satisfied with the facilities available in impinging higher education.

Table 3.16 Number of Government Employees in the Family

Number of Employees in the Family		Location		Total	Chi-Square
		Rural	Urban		
Private companies	N	12	27	39	Value:5.844 df:4 p-value: 0.211
	%	9.3%	16.5%	13.3%	
Government	N	3	8	11	
	%	2.3%	4.9%	3.8%	
Semi government/ Cooperative department	N	2	5	7	
	%	1.6%	3.0%	2.4%	
Private firms	N	7	8	15	
	%	5.4%	4.9%	5.1%	
Self employment/ business / other job	N	105	116	221	
	%	81.4%	70.7%	75.4%	
Total	N	129	164	293	
	%	100%	100%	100%	

Source: Primary Survey, 2021

Parent's employment status and education is considered as one of the important factors to determine the children's education also. There is a general argument that educational and job attainment of parents has a positive impact on their children's education. The above table discloses that the differences in rural and urban regions regarding the number of family members who were employed in various institutions. 81.4 percent of people from rural areas were self employed and only 2.3 percent of people were government employers.

Table 3.17 Willingness of Parents to Send their Children to Faraway Places for Higher Education

Willingness of Parents to send their children to faraway places for higher education			Location		Total	Chi-Square
			Rural	Urban		
Willingness	No	N	50	35	85	Value:0.395 df:1 p-value: 0.530
		%	30.5%	27.1%	29.0%	
	Yes	N	114	94	208	
		%	69.5%	72.9%	71.0%	
		N	129	164	293	
		%	100.0%	100.0%	100.0%	
Total		N	129	164	293	
		%	100.0%	100.0%	100.0%	

Source: Primary Survey, 2021 Note: percent within Rural_Urban

The table 3.17 shows the parental attitude to send their children to distant places for higher education. In the rural areas of Idukki district 30.5 percent of parents are not ready or feel anxiety to send their children to distant places for higher studies. Some of the respondents argued that they are faced with certain constraints at home especially in case of girl students which adversely affected their educational attainment. They are forced to engage in certain domestic affairs and accompany their parents in the cultivation field. This situation will result in diverting their attention from the successful completion of their

course and dilutes their interest in studies and disturbs their concentration. The students and parents reveals their apprehensions and concerns during the period of data collection. The analysis of data also reveals that there is a dearth of parent's positive attitude towards their children's education.

Table 3.18 Parental Attitude

Attitude of people/parents regarding your higher studies			Location		Total	Chi-Square
			Rural	Urban		
Attitude of people/parents	Favourable	N	119	152	271	Value: 0.020 df:1 p-value: 0.888
		%	92.2%	92.7%	92.5%	
	Not Favourable	N	10	12	22	
		%	7.8%	7.3%	7.5%	
Total		N	129	164	293	
		%	100.0%	100.0%	100.0%	

Source: Primary Survey, 2021

Table 3.19 Difficulties Faced by the Students for their Higher Education (Rural)

Reasons	Frequency	Percent
Economic	28	21.70
Geographical	19	14.72
Personal	48	37.20
social/cultural	17	13.17
Any other	17	13.17

Source: Primary Survey, 2021

The table 3.19 illustrates the different problems faced by the students from rural areas of Idukki district regarding the attainment of their higher educational opportunities. In this

analysis 37.2 percent of people were facing some personal issues and 28 percent of people were in economic troubles.

Table 3.20 Problems Related to the Admission of Higher Studies

Problems Related to the Admission of Higher Studies			Location		Total	Chi-Square
			Rural	Urban		
Problems	difficulty in entrance examination	N	14	14	28	Value: 2.107 df:5 p-value: 0.834
		%	10.9%	8.5%	9.6%	
	distance from home to educational institutions	N	21	28	49	
		%	16.3%	17.1%	16.7%	
	geographical divide	N	8	2	10	
		%	6.2%	1.2%	3.4%	
	income constraints/ higher fees	N	39	45	84	
		%	30.2%	27.4%	28.7%	
	lack of confidence	N	18	30	48	
		%	14.0%	18.3%	16.4%	
	other access problems	N	40	25	65	
		%	24.4%	19.4%	22.2%	
	parental attitude/ fear/family issues/marriage		4	5	9	
			3.1%	3.0%	3.1%	
Total		N	129	164	293	
		%	100.0 %	100.0 %	100.0 %	

Source: Primary Survey, 2021

The 3.20 discloses the important problems faced by the students/parents related to the admission of higher educational institutions. The students who were facing the problem of income constraints were 30. 2 and 27.4 percent in rural and urban areas respectively.

Table 3.21Access to Higher Education Institutions

Access to higher education institutions (admission)			Location		Total	Chi-Square
			Rural	Urban		
Accessibility	No	N	95	72	167	Value: 0.132 df:1 p-value: 0.717
		%	57.9%	55.8%	57.0%	
	Yes	N	57	69	126	
		%	44.2%	42.1%	43.0%	
		N	95	72	167	
		%	57.9%	55.8%	57.0%	
Total		N	129	164	293	
		%	100.0%	100.0%	100.0%	

Source: Primary Survey, 2021

The students from rural and urban areas of Idukki district opined that they were faced with certain types of access problems regarding the completion of their higher education. The most important among them are economic and geographical. Majority of them belong to low-income groups. The students from rural areas faced the problems like lack of transportation facilities, shortage of seats in the government and aided colleges. Geographical divide is another important problem. Common facilities available in other districts also fall behind in Idukki district. Other basic amenities, including transportation facilities, availability of courses and institutions were very limited in this district. There are several problems and challenges faced by the rural and the urban people/students of Idukki district about the attainment of higher educational opportunities.

Human Capital Utilization and Higher Education

Education is sought not only as it confers higher earning capacity on people but also for its other highly valued benefits: it gives one a better social standing and pride; it enables one to make better choices in life; it provides knowledge to understand the changes taking place in society; it also stimulates innovation

technologies. Economists have stressed the need for expanding educational opportunities in a nation as it accelerates the development process. Moreover, the availability of educated labour force facilitates adaptation of new technologies. Economists have stressed the need for expanding educational opportunities in a nation as it accelerates the development process. Human capital utilization is crucial for the sustainable growth and development of each region.

Sources of Human Capital

Investment in education is considered as one of the main sources of human capital. There are several other sources as well. Investments in health, on- the job training, migration and information are the other sources of human capital formation. Why do your parents spend money on education? Spending on education by individuals is similar to spending on capital goods by companies with the objective of increasing future profits over a period of time. Likewise, individuals invest in education with the objective of increasing their future income. Like education, health is also considered as an important input for the development of a nation as much as it is important for the development of an individual.

Human Capital and Economic Growth

The labour skill of an educated person is more than that of an uneducated person and that the former generates more income than the latter. Economic growth means the increase in real national income of a country; naturally, the input of the educated person to economic growth is more than that of an illiterate person. If a healthy person could provide uninterrupted labour supply for a longer period of time, then health is also an important factor for economic growth. Thus, both education and health, along with many other factors like on-the-job trai-ning, job market information and migration, increase an indivi-dual’s income generating capacity. This enhanced productivity of human beings or human capital contributes substantially not only towards increasing labour productivity but also stimulates innovations and creates ability to absorb new technologies.

Higher Education and Employment Status

This section attempts to trace the impact of Education on the earnings of people in Idukki district. The analyses of the differential effect of Education on the earnings of various groups of people have been attempted. The present study was basically intended to assess the higher Education and human capital utilization of Idukki district. The study reveals that many people are unable to attain higher levels of education for various reasons. This makes them remain backward. Hence it is essential to identify the problems of education and take measures for the educational development of the district.

Table 3.22 Employment Status

Category	Employment Status	Rural	Percentage	Urban	Percentage
Government	Gazette rank	3	2.05	4	2.73
	Non Gazeted Rank(Teachers, LD/UD Clerk, Police/ Fire Force and other)	8	5.47	22	15.06
Private Employment	Business	5	3.42	25	17.12
	Self employed	12	8.21	11	7.53
	Partner/investment	7	4.79	15	10.2
Agriculture	Other private job	12	8.2	15	10.2
	Rental cultivation	20	13.69	5	3.52
	Own cultivation	24	16.43	12	8.21
	Animal husbandry	15	10.27	5	3.42
	Other agricul-tural works	12	8.21	5	3.42
Industry	Small scale	20	13.69	14	9.5
	Self owned industries	5	3.42	10	6.8
	Others	3	2.05	8	5.47
	Total	146	100	146	100

Source: Primary Survey, 2021

Table 3.22 reveals that the occupational attainment of the people who have completed the higher education. The information collected from the alumni groups of sampled institutions portraits the rural urban divide in acquiring different job opportunities of the people who were completed the higher education.

All the respondents remarked that high range areas of Idukki district are very backward and they were faced many problems and constraints as compared with plain land areas of Idukki district. Almost all respondents opinioned that, there exist considerable disparities in the educational development of various sections of people. The 55 per cent of the respondents remarked that rural areas of the district are very backward when compared to their urban counterparts. Since a major part of Analysis and Interpretation of Data the district constitute rural areas with hilly and remote places, educational development of these areas is a serious problem. About 50% of the respondents are of the view that males are very backward in educational attainment than the females. They pointed out the problems such as lack of interest in education, excessive dependence on agriculture, entrance to occupations at an early age, lack of parental education, etc. Regarding the educational attainment of community groups, a vast majority (75%) of the respondents reported that SC/ST is the more backward sections than OBC and Forward Caste. A good percentage of SC/ST population of the state is living in Idukki and most of them are in the remote areas of the district. The illiterates, without any schooling mainly belong to these backward sections. According to 70 per cent of the respondents, the educational attainment of people in the high economic status households is much higher than the low and average economic status households. They are of the opinion that people from poor households are unable to shoulder the high cost of education and are compelled to discontinue their studies. Those who are going for higher education have to depend on banks to get financial assistance, but in many cases, they are denied loans due to the lack of security. The student has to travel, on an average 20 kilometers for higher education. Coupled with this lack of transport facilities is also a serious

problem in the district. In the rural Idukki, many students have to walk more than 20 kilometers to reach their institutions. But some are depending on bus services and auto rickshaws.

Drop out of students from their degree courses is a major educational problem in Idukki district. 75 per cent of the respondents are of the opinion that dropout rate is high in the rural areas. According to 60 per cent of the respondents, the dropout rate of boys is higher than that of girls. And 70 per cent viewed that drop outs are mainly from poor economic backgrounds. The main reasons for drop out listed by the respondents are, lack of educational institutions in the nearby places, lack of interest in education, failure in examinations, financial problems, entrance to low paid occupations, unfavourable home environment, etc.

Regarding the preference for the type of institution, 70 per cent gave priority to professional and technical institutions and the rest 30 per cent to general education institutions like arts and science colleges. They pointed out the fact that, due to the lack of facilities for higher education, those who wish to pursue their studies go to other districts and states for obtaining higher education. With respect to higher education, most of (78%) the respondents are against the growth of self financing institutions. They pointed out that many of these institutions are collecting highest fees and mostly profit oriented. Students from poor families are not able to pay the high fees in these institutions.

Conclusion and Policy Recommendations

Ensuring equity in higher education is one of the national policies of higher education. It is also recognized that equal opportunity to all, without discrimination also requires affirmative action and proactive steps by the government. The major focal point on the contemporary situation is on empowering the nation through education, bridging the rural-urban divide ensuring the rights of marginalized sections of the society. Affirmative action should be necessary to empower the people who belong to the physically and geographically challenged terrain and various strategies to facilitate their learning hunt need to be more meticulously implemented.

The major conclusion drawn from the study is that higher education has a significant impact on the human capital utilization and economic growth of people in Idukki district, which is revealed through the earnings of individuals and economic welfare status of the households. The educational backwardness of the district is a hindrance to economic growth. Higher education is essential to build a workforce capable of underpinning a modern competitive economy. The higher education sector needs to be viewed as a long-term social investment for the promotion of economic growth, cultural development, social cohesion, equity and justice. It is important to address the problems related to higher education which were existed in high range areas of Idukki district. It is the need of the hour is to bring out the people who belong to the high range region of Idukki district into the mainstream of the developmental process.

The students of Idukki district are witnessing some significant difficulties regarding their higher education as compared to other districts. In addition to this there are a lot of deviations and differences exist in between the high range regions and the plain land regions of this district. The important constraints and challenges identified through this survey are Geographical divide, Social factors, Economic/ financial factors, Gender Community and religion, Psychological factors (Emotional/ anxiety, inhibitions etc) Transportation problems etc. The initial survey identified certain personal constraints with regard to their accessibility to higher education, Personal constraints, as reported by the respondents are, Self-motivation, Interest, goal setting and commitment, lack of interest in studies, health problems, early marriage, internal inhibition or shyness, Problem of unemployment. Only a small percentage of respondents argued that certain practices in educational institutions punitive/ disciplinary actions causes to discontinue their education.

The study also examined the household and parental characteristics which had possible influence on the college dropouts. The standard of living index also shows that children belonging to low income families were more likely to dropout. Parental characteristics also play a significant role in

determining their higher education. The dropouts among the children belonging to illiterate/less literate parents were two times higher than that of the literate parents. The major reasons cited by the households for the dropouts where children were not interested in studies, cost was too much, and children were required for household work and also for work outside to contribute to family income. Marriage of girl students is another important factor for dropout from the higher educational institutions. An attempt was made in this research study to categorize the most important reasons given by the households for their children's dropout. According to this grouping, household factors seem as the most responsible factor for the dropouts. Unless and until there is considerable augmentation in the economic status of households and change in the social attitudes of parents to achieving the goal of better higher education and grab the opportunities getting through higher education, otherwise it will remain a major challenge for the highland areas of Idukki district.

Education is widely recognized as an important instrument for economic development. It raises the economic literacy of people which leads to the optimum utilization of resources. Educated people are capable of utilizing the benefits of modern science and technology. Education directly or indirectly contributes to improvement of the standard of living which ultimately results in the economic welfare of people. Over the decades, considerable progress has been achieved in terms of literacy, school enrolment, and network of schools and spread of higher education institutions including technical and professional education.

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4

Behavioural Interventions to Aid First-Generation College Students: Evidence from Field Experiments

Meriam Vandana Alex & S Padma Annakamu

By the time this study is published, it would be a different world due to the pandemic. One aspect which is clearly evident now is the applicability of behavioural insights to reduce the spread of the virus. Interestingly, the growing importance of behavioural economics and experimental economics has got the attention of policy makers to make the world a better place to live. In the academic front there were a lot of changes owing mostly to the popularity of customised learning experiences and surge in online courses. At this time of COVID-19, almost all schools and colleges around the world are running in digital platforms. One can state that this pandemic has pushed the academicians to think in an alternative way to impart knowledge to the students.

No matter what happens in the world, education is still the most powerful tool to change an entire nation. That is one of the reasons why all the developing and developed countries had always focussed on education. One of the goals in sustainable development agenda is "By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship" (SDG Report, 2019). In order to achieve this, almost all individuals from the age group of 18-23 years should be encouraged to pursue higher education post schooling.

As Indian government has pushed for more reforms in primary and secondary schooling, students who passed out from secondary schools are on the expansion (Varghese, 2015).

Recently, a lot of importance is given to higher education in India. As India has the world's youngest population, it is quintessential for the government to take advantage of the demographic dividend which India is experiencing now. Higher education shapes the significant scaffold which assists with expansion on the early educational foundation and empowers the youthful populace to be beneficial citizens who can work and contribute towards the country's triumph story. GER helps to understand the enrolment for Higher education in India as per data in the AISHE for 2018-19 (All India Survey on Higher Education).

GER measures enrolment as percent of a particular age category of the populace. The GER for higher education (18-23 age category) in India for the year 2018-19 was 26.3. This is an expansion over the earlier year and is in accordance with the expanding pattern throughout the years. In 2014-15, the higher education GER was 24.3. While advanced education GER in India is on an expanding pattern, it stills slacks when contrasted to other countries. When determined according to the global norm, the GER for higher education in India would be 30.6%.Apart from a general increment in Higher Education GER at the all-India level, an upward pattern is seen among the marginalised communities. The GER among SC people group for (2018-2019) is 23, while it was just 19.1 in (2014-2015.) So also, among the ST people group, the GER for higher education rose from 13.7 in (2014-2015) to 17.2 in (2018-2019). (Annual Status of Education Report -2018).

First-Generation Students in Indian Context

It is apparent that there is a huge socio-economic division that plays in higher education. Students who have their parents educated in colleges tend to perform well and students whose parents are not college educated tend to lag behind.

In Indian setting, more than 50 % of students are first generation learners and dominant part of these learners are from lower strata like SC and ST, which is generally viewed as the most backward category of the society (Vellu, 2015). Indeed, even in the twenty-first century, caste plays a significant role in the

educational attainment for especially SC and ST students. First generation students bin Indian setting also belongs to low income category. Their parents would have less literacy, educational attainment and financial backwardness.

The majority of these first-generation pupils are children of agrarian workers, bonded workers and city sanitation laborers with no education. Most of the first-generations will have to contribute to family income. Accordingly, first generation learners need to confront numerous difficulties in their journey of education. Most of them would have attended schools with less academic success. This poor quality of training received by them makes it very difficult to succeed in college.

The Evident Differences between First-Generation Learner and Non-First-Generation Learner.

It wouldn't be much evident for faculties to identify a first-generation student and non-first-generation student when they just enter the college. Once the academic progress is been monitored of each and every student, it becomes easy to identify these differences. As they form a large group of the flourishing higher secondary education system, little effort has been made to understand about the first-generation learners on a theoretical level.

In Indian setting, differential section of first and continuing generation students into advanced education throughout socioeconomic groups is relevant and might be seen as the side-effect of the cultural and social capital of a person. Contrasts in socioeconomic level of an individual have direct impact that makes one of a kind distinction in the cultural and social capital. Bourdieu's hypothesis (1977, 1993) of capital clarified the differential section of understudies across generational status in advanced education.

SES infers the proportion of cultural and social capital; alongside annual family income. People who identify themselves in high socioeconomic strata try to transmit cultural and social capital to their youngsters by giving relevant information and convictions expected to prevail at the school

and advanced education level. The cultural and social capital enables these students to make better decisions in day to day college life. Cultural and social capital isn't obtained in a brief timeframe; rather it is procured over time because of exposure to different life experiences, perspectives and language of the guardians. Students from high cultural and social capital strata are nearly positioned well that pushes them to enact brilliantly at beginning times of their education. Basically, this prompts more significant levels of educational fulfilment among the kids who get cultural and social capital at home. Such students receive more noteworthy encouragement from ‘significant others’ like guardians, instructors and their peers. This clearly points out that higher the levels of social and cultural capital, higher are the demonstrated academic ability.

There are certain factors which contribute to their success in college. Self-adequacy or individuals' confidence in their capacity to be triumphant in advanced education is a relevant factor which impacts their decisions. Pajares, et.al (2001); Rushi, (2007); Weiten, et.al (2000). The commitment of self-viability to scholarly performance is very much evolved in the research Bryan,et.al (1981); Chemer, et.al, (2001); Hampton, et.al (2003). In accordance with this, a bunch of studies (Baird, 1976; Ethington and Smart, 1986; Issac et al., 1992; Malaney and Issac, 1988) propose that understudies with noteworthy scholarly accomplishment, scholastic and social integration at their undergrad institutions are well on the way to seek higher aspirations in education.(Kallio, 1995).

The plight of first-generation students can be understood if one watches them closely especially in the colleges. Even when they struggle with school education, they are pushed to continue as government takes a lot of effort in that area. They would be the ones who will struggle with regular attendance, timely submission of assignments, academic progress. This happens owing to the fact that they have lower academic aspirations, and becomes clueless about how to take it forward. These variables decrease the probability of first-generation leaners 'deciding' to go for advanced education and furthermore restricts the

selection of sorts of universities (Awashti, 2015; Núñezet.al, 2012; Smith et.al, 2010; Wood, 2012).

Along these lines, one could say that continuing generation learners have a better advantage with greater amount of social and cultural capital at their beginning times of education and are bound to have a solid choice to enter advanced education than first-generation learners.

Challenges Faced by First Generation Learners

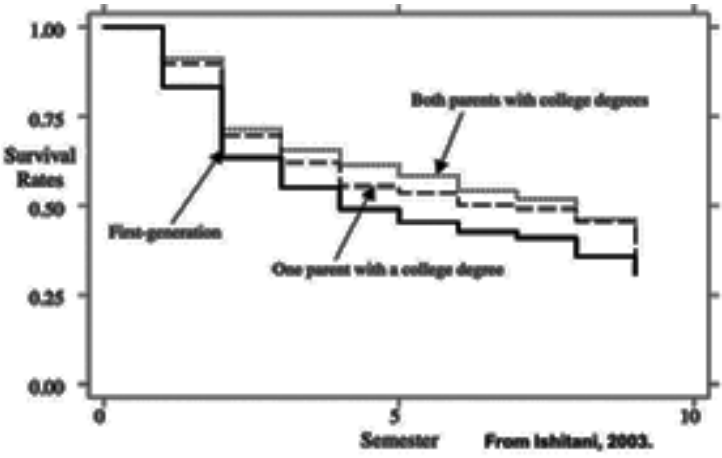
The standpoint of a first-generation college student is at once promising and overwhelming. Being the first in one's family to take an advanced degree is a moment of pride and accomplishment for the student as well as the family. These decisions have the power to bring a financial stability and a better standard in the society. In comparison with the continuing generation students, the first-generation student is mostly at a disadvantage in numerous aspects. From the transition from school to college to academic readiness to money related troubles, the way is probably going to be populated with a lot of difficulties. One can say graduation rate for first generation student is considerably not as much as that of continuing generation students. Understanding the issues of first-generation students can enable faculty and college administrators to be alert for potential troubles and create strategies to help first-generation students.

The first-generation students face a lot of family challenges as they do not get any guidance from family for their academic progress. As they usually fall into lower socioeconomic status, they will have more dependents which take away time and focus on studies. Thus, they struggle between the expectations of the family, society and the college. Darling and Smith, (2007); Nomi, (2005); Dennis et al., (2005).

The first-generation learners get into the higher-education system with not much knowledge on how exactly to navigate the atrocities of college life. Starting from the college application process to paying fees and applying for financial aid, takes a toll on them. They usually will not have much learning capabilities

as they would have a weak school education. After the admission into the college, they wander around without knowing how to navigate and end up bunking classes. They would worry more about the financial struggle and take up more part time jobs where they end up dropping out of colleges. Ishitani, (2003); Darling et.al, (2007); Pascarella et al., (2003).

Figure 4.1 Attrition Rates for Students with Different Parental Education



Source: Ishitani, 2003

From the above figure, it is evident that first-generation students have a higher probability of leaving college without receiving a degree. An examination by Ishitani (2003) at a college indicated that college attrition rate for first-generation undergrads were 22% more noteworthy than for undergrads with college educated parents. Attrition was intense during the beginning year of the college for first-generation undergrads that had a whopping 71% than with the students of college educated parents. One fourth of first-generation learners get a college education; contrasted with two thirds of non-first-generation students Majer,(2009);Chen(2005). Now and then, first-generation students see educators and administrators to be apathetic regarding them Darling et.al, (2007).

Acclimating to the way of life of an advanced education institute can be especially overwhelming for first-generation students as they might be from underrepresented minorities. (Nomi, 2005).More than 33% of first-generation college students are individuals of ethnic or racial minority groups. (Nomi, 2005).Social help from the parents and friends is identified with the capacity of ethnic minority undergrads to conform to college life. An apparent absence of companion support was connected to poor college results for minority students (Dennis et al., 2005).

Statement of the Problem

At first, it is quintessential to define the term first-generation college student used in this research. A first-generation college student is a student whose parents or guardians who have never graduated from college. They are the first ones in the family to get a formal college education. Even though they have access to formal college education in India, they find a lot of obstacles to complete their degree. The number of students who come to the second year is less than the number of students initially enrolled for a degree program. It even gets worst when they reach at the end of the degree course.

Studies on academic and social combination of first-generation learners has demonstrated that their connection with facilitators or staff was extremely constrained and they delay to look for help from the support services (Kim and Sax, 2009) and they always carry self-doubt about the capacity to contend and exceed the expectations. Constrained by money related problems, a large portion of these undergrads regularly drive from home and study inside a range of 50 miles from home and have low maintenance occupations (Higher Education Research Institute [HERI], 2007).These reasons keep them from taking an interest in extra-curricular activities in the college and therefore they do not get integrated into the college and they tend to develop a lack of belonging.

To paraphrase Richard Thaler (2009), how would we guarantee facilitators nudge for good, utilizing different behavioural procedures to support the students and families to make well

informed choices about what's best for their own conditions, instead of nudges to tell undergrads what's best for them?

Educators in colleges are now dealing with children who are born between 1996 to 2010.They can be named as Generation Z. (McKinsy report, 2018). The key aspect of this generation is, they give a lot of importance to individuality as they are very active in social media. According to the Institute for Emerging Issues (2012), the Gen Z is the most ethnically diverse and technologically sophisticated generation. They also have high expectations and less focus. Millennials enjoy utilizing technology. It takes a lot of innovative methods in education to reach out to them. Things get more complicated when they are identified as first-generation students.

Most of the educators in the colleges and universities would be from preceding generation which makes it challenging. There is an urgency to throw light upon the behavioural aspects of the first-generation students who also belong to Generation Z. The main question is, should educators have to customize academic activities for first-generation students?

Most of the researches based on experimental and behavioural methods in India are undertaken by institutes like J-PAL (The Abdul Latif Jameel Poverty Action Lab), Pratham and E-PoD (Harvard Evidence for Policy Design) as these types of research need huge funding. Both of these institutes relentlessly work for the eradication of poverty by bringing in interventions which makes a huge impact. Their main area of study is mostly rural parts of a developing and under developed country. Their researches on education concentrate mostly on primary and secondary education of a country. There isn’t much research done on experimental and behavioural studies on higher educational sector. The fact that most of the developing countries are concentrating more on school education makes it very difficult to throw light on college education. It is even more rare that there are hardly any studies reflected on first-generation college students. It is comparatively easy to make students enrol in a college, but it becomes a big question when it comes to their attrition rate and also versatility of the education

a student gets. This project tries to find out the behavioural hindrances which they face and also discusses about the applicability of behavioural interventions among first-generation students.

Objectives

The following are the objectives this project intended to find:

I) To study the socio-economic background of the first-generation college students in western suburban of Chennai.

II) To comprehend behavioural aspect of the first-generation college students.

III) To create a job profile for the first-generation college students in order to understand the job-related problems.

IV) To identify behavioural obstacles hindering first-generation students' progress in college.

V) To analyse behavioural intervention which demonstrates maximum impact on first generation learners in a college.

Hypotheses

The hypothesis is formed to test whether there is any statistical evidence in favour of the behavioural analysis and interventions. The hypothesis testing is done for the last two objectives. Through a behavioural survey, data was collected about the hindrances which they faced and it was important to check if there were any statistically significant variables for hindering the academic progress. Likewise, experiments were conducted to understand statistical evidence of the variables which h as an impact on first-generation learners.

Hypothesis 1:

H0: There is no association between sample respondent’s part-time job and time to study.

H1: There is an association between sample respondent’s part-time job and time to study.

Hypothesis 2:

H0: There is no association between sample respondent's part-time job and current semester results.

H1: There is an association between sample respondent's part-time job and current semester results.

Hypothesis 3:

H0: There is no association between sample respondent's submission of assignments on time and factors which leads to delay in assignment.

H1: There is an association between sample respondent's submission of assignments on time and factors which leads to delay in assignment.

Hypothesis 4

Ho: There is no significant difference between the means of experimental and control group after the attendance intervention.

H1: There is significant difference between the means of experimental and control group after the attendance intervention.

Hypothesis 5

Ho: There is no impact on submission of assignments on time when there is a reward.

H1: There is an impact on submission of assignments on time when there is loss aversion.

Hypothesis 6

Ho: There is no difference on the test scores when conducted after playing Kahoot

H1: There is a difference on the test scores when conducted after playing Kahoot

Hypothesis 7

Ho: There is no significant association between positive affirmations and test scores.

H1: There is significant association between positive affirmations and test scores.

Methodology

Overview of Applied Behavioural Economics

The achievement of applied behavioural economics in public policies lies meticulously in structuring and executing programs that can impact people to take better informed choices. In the recent times, behavioral insights on power of nudges have gained a lot of popularity after Cass Sunstein and Richard Thaler's famous book- Nudge. The Behavioural Interventions to Advance Self-Sufficiency (BIAS) venture, propelled in 2010, can be considered as the first project to use behavioural economics lens to evaluate at programs that serve poor and helpless families in the United States (MDRC BIAS final report 2017). The objective of the task was to figure out how behavioural tools could be utilized to convey program which improves the well-being of children and families from low SES.

In addition, behavioural units were launched at The World Bank and by the governments of Australia, Canada, Singapore, and numerous European nations (Lourenço, Ciriolo, Almeida, and Troussard, 2016).The White House created a federal Social and Behavioural Sciences Team in 2014, and an executive order in 2015 directed federal agencies to use behavioural science insights to serve the American people better. Even, Indian government under the supervision of NITI AYOG, started a behavioural unit to use behavioural economics to make the lives of people better.

Behavioural Interventions to Aid First-Generation Students (BIAFS)

The BIAFS project was undertaken from July 2019 to April 2020. It included several distinct stages of work, which are illustrated in Figure 1.5.1. This project was a replica of BIAS

project by MRDC in the U.S. Department of Health and Human Services. This project started with a knowledge development phase which included an extensive review of field experiments on behavioural interventions in order to learn about the most pressing problems faced by common people in different areas. This early work focused on understanding the potential applications of behavioural economics in education.

Figure 4.2: BIAFS Project Stages



Source: Authors' own

In the initial stage, an extensive review of literature of behavioural interventions were studied in different fields. Gradually, interventions based only in educational sector was considered. As studies related to behavioural interventions in India are scanty, number of studies in American and African contexts were taken. BIAFS project is completely inspired by the project of Idea42 where they had incorporated different evident based strategies to get students through the college. Their specific plan of college life and academics which help students to navigate college life successfully were kept in mind while making the framework for BIAFS. Expert opinion of stakeholders, researchers and behavioural economists were put into the design and implementation of this project.

Research Design

As this research is concentrated more on field experiments, it was highly essential to monitor the change in behaviour of the students in different experiments. The researchers had to closely monitor them for a span of nearly 9 months to understand if there were any evident behavioural changes. A pilot survey was initially conducted in different educational settings to understand how these interventions work. From the pilot survey, it was understood that researchers should develop a good rapport among them to understand how their minds function.

Also, as students do not easily reveal their feelings and perception, this research was conducted in an educational setting where the researcher has the closest proximity.

For this, 246 students were randomly selected from a college for the feasibility for evaluating the experiments. The sample size for this study is 246. They belonged to area of western-suburban of Chennai namely Iyyappanthangal, Kattupakkam, Poonamallee and, Porur. First generation learners were identified with the help of data collected by the administrative office of the college while enrolling for a course. Also, it was imperative to understand their socioeconomic status for which a survey was conducted with their parents. A behavioural and work-related survey was also conducted among the students.

The college adopted certain strategies to improve the academic progress. Interventions like remedial classes, tutorial classes, sending notes through Google classroom were encouraged and was already recorded in the college data. It has to be noted that nobody has checked the validity of these interventions. So, it was highly essential to test whether these interventions worked and if not, what changes could be brought in.

There were three stages in the project. The first level was to make a strong database of the participants. Participant profiles for each of the students was developed, which included details of their background drawn from staff, parent and student interviews. These profiles provided information about their experiences, family situation, personality characteristics and current educational status, and this enabled the researchers to gain important insights into the lives of each student. The primary data was collected through oral interviews and observation. Interviews were conducted with first generation learners and teachers to understand the classroom level challenges faced by the students. Parents of the same first-generation learner students were interviewed to study the nature of their support and motivation towards their child's education.

The secondary data was gathered through bio data of students, journals, annual documents of colleges, universities, etc. The geographical location of the respondents was western suburban

of Chennai. The experiments for this study was conducted for 3-year degree college students in all disciplines. The demographic and economic variables considered in this study were age group, income, gender, parents' employment. The methodology was precisely mixed. The study uses a positivist, objectivist and deductive approach. While descriptive statistics have been used for quantitative analysis; open coding was used to analyse qualitative data.

The second stage was all about behavioural interventions which is a part of field experiments. Five experiments were conducted on them. All the experiments had overlapping students from a population of 246 students. After forming a database, field experiments were conducted. The key to a valuable field experiment is the experimental control factor. This involves controlling the variation of one variable, while keeping all other conditions unchanged. A significant aim to run experiments is to understand how these students will behave in different situations.

Field experiments are the core of this research. Field experiments make use of randomization in an environment that captures important characteristics of the real world. People are assigned random to receive different treatments. There will be also a control group which does not get any treatment.

The final stage was the evaluation of all the experiments which statistically validated the interventions and checked which had the maximum impact on first-generation students. Tools and methodologies used were different for different experiments. This is explained well in the analysis chapter. Independent sample t test was conducted to test the hypothesis.

Scope of Study in Alternative Framework

Behavioural economics have helped researchers and policy makers to nudge people to make better decisions in various fields. Using behavioural insights, one can carefully design interventions to target a particular behaviour. Behavioural interventions can be used in health economics by appropriately using tools to change a particular behaviour. It has a scope for

financial management of families and employees in an organization. The beauty of behavioural economics is that one can use in any field with careful design of the interventions.

The literature done for this research pertains to the area of both experimental economics and behavioural economics. All though behavioural economics and experimental economics are two distinct subjects, both the subjects can overlap one other. The current chapter attempts to discuss about different interventions done in experimental setting to improve human behaviour.

The review of this research is done in two ways. The first part is a discussion on application of nudges in education sector and the second part is about different interventions done for first-generation students.

Applications of Nudges in Education Setting

All interventions in experimental setting are not nudges. One can say nudges form a bigger part in interventions. This section details in different types of nudges used in educational setting, but does not have nudges upon first generation students.

“Nudge, according to Richard Thaler and Cass Sunstein, is any aspect of the choice architecture that alters people’s behaviour in a predictable way without forbidding any options or significantly changing their economic incentives”. Nudge is a gentle push to change the behaviour in a desired way. The mere existence of barriers in behaviours pose difficulty in active decision making, but it motivates researchers to bring in interventions to evade them.

This section is divided into type of nudges, followed by details of experiments and then the results of the interventions.

Defaults

One of the most powerful policy tools is to change the defaults. Defaults are easy to opt for as it doesn’t require much thinking. Policy makers can make a lot of difference by changing the defaults.

Bergman & Rogers (2017) conducted an experimental study where default intervention was an opt in texting message service for the parents. The text messages served the purpose of sending actual information about their children regarding their attendance, performance, missed classes and assignments. It was found that such an intervention compared the impact of an opt-out vs. an opt-in option. When this came as automatic enrolment, it started to show an impact on student's performance.

Framing

Framing is a type of intervention where small changes are made in the readily available information presented to the people which will affect their decision making. Framing can be changed according to the perspective of the person who is implementing.

In a randomised control trial run in a school in the US, the students were framed by using a framework of gain or loss (Levitt et al., 2016). This was tried to improve their effort for an upcoming test. In the gain frame, randomly selected students were rewarded for their improvements in the test scores. In the loss frame, another set of students were given the rewards before the test under one condition. If they do not have any improvements in the test, they had to return. They were asked to sign consent letter and also had to reveal what they intended to do with the reward. This imbibed a greater sense of loss for the latter group. But the results were not statistically significant as the rewards were given just before the test where students did not get time to put efforts.

Peer Group Manipulations.

Peer group manipulations are similar to framing, but the difference is peer group manipulations are placed on the decision environment. These manipulations provide a platform for peer interaction which may help them to improve the sense of social belonging, and make them work towards achieving something in common or improve a particular skill through study partnerships.

Carrell, et al., (2013) conducted an experiment where half of the beginners of the Air Force Academy of the United States were formed into peer groups. The medium ability students were placed with a group which were more similar to them. The low ability students were placed with high ability students. A deteriorating grade was found for low -ability students and this became a group intervention which was backfired. There was no change in the performance of high ability students, but medium students' performance changed significantly. In the group of high ability freshmen and low-quality freshmen, they avoided each other and made sub groups which did not influenze anybody's performance. This experiment showcased that it could be very difficult to bring in a sense of social belonging and that kind of social belonging forms at the cost of relative comparison which in turn brings discouragement.

Deadlines

Deadlines are nightmares for the students. It has an impeding impact on finishing tasks like submission of assignments and preparation for exams. Procrastination and self-control issues could be the associated issues for such students.

One of the earliest influential paper reported about deadline was an experiment conducted with 99 students from an executive programme at Massachussettes Institute of Technology. Ariely & Wertenbroch (2002) experimented the effect of two different deadline treatment for two groups. In one of the treatment groups, students could choose their own deadlines and were asked to commit to it. In the second treatment group, they were given evenly spread deadlines. Both the groups were given 1% penalty on grades if they did not submit on time. The study found that students who chose their own deadlines did not get better grades. This study denotes that externally imposed deadlines were far effective than self-imposed deadlines. They realised that self-imposing deadlines were not optimal for finishing the assignments. It was also found that if a choice was given, most of the students preferred self-imposing deadlines. As this experiment was done on students from a prestigious

institute, it is assumed that there won't be a problem of completion of assignments.

Goal Setting.

Another type of a commitment tool which is extensively used in educational setting is objective setting/ goal setting. Hypothetically, present-one-sided specialists who put too little exertion in their education can gain by self-set objectives as an internal commitment tool.

Clark et al. (2017) tried the impact of self-set, task and performance objectives for US college understudies. They found that task-based objectives drove understudies to connect more with the task and, at the end, perform better on tests. Interestingly, performance objectives for tests and the general course grade had little impact. The researchers contend that task-based objectives include less problems, making the result increasingly controllable for understudies. Simultaneously, performance objectives are all the longer haul and hesitation may lessen the viability.

Reminders

Owing to attention impediments, there is a possibility that individuals neglect to settle on choices they proposed to make and neglect to make a move they intended to take. Reminders as a target tries to solve the problems by pulling together thoughtfulness regarding the choice issue or task (see for example Karlan, McConnell, Mullainathan, and Zinman, 2016). Additionally, reminders usually enlighten action on the deadlines, helping individuals to remember definitely known data or giving simple access to the new data.

Informational Nudges.

Even if the information is readily available and easily accessible in the public, there are times when parents and students do not get the accurate data while making decisions. This can be termed as attention limitation, basically implying there is a limit to one's attention. By giving the most important data in an effectively available way, it might be conceivable to defeat

attention constraints. Furthermore, choice architects can guarantee that some data is more striking than other data. Subsequently, enlightening on these areas can target both attention constraints and other boundaries of behaviour.

Another intervention in Los Angeles informed the parents of the students with frequent data about their child's missed assignments and poor grades by means of email, instant messages and telephone (Bergman, 2016). As a result of this, both the efforts of the students and grades improved altogether.

Social Comparison Nudge.

Nudges giving social comparison data are a peculiar type of informational nudge. These nudges furnish data that encourages comparisons with others and in doing so may please individuals' inclinations for adhering to the accepted practices as well as may make social strain to stick to the standards.

Jalava, et al. (2015) directed a randomized control trial on 1,000 6th graders in Swedish elementary schools, finding that students grades were essentially higher with relative evaluation than with standard absolute evaluation (on an A–F scale).17 boys were motivated more by relative evaluating. The investigation likewise found that the impacts were lesser for understudies for whom the inquiries were difficult as they were tested early in the school year. This recommends that relative evaluating might be insufficient while getting a high grade.

Extrinsic Motivation.

Constructive outcomes of non-monetary incentives were likewise found in a US study giving incentives to students to peruse reading books over the holidays (Guryan, et al., 2016). By reading books children could win rewards to 'spend' on products which are interesting for them, for example, craftsmanship sets, board games or athletic gear. The research brought out the beneficial outcomes on the quantity of books read and on the results of spelling quiz. But there were no impacts on comprehension skills or grades on English language test.

Behavioural Interventions on First-Generation Students

This session discusses interventions on first-generations students across school and college settings. Most of the research papers reflects on the western educational setting. As researches based on Indian educational settings were less, only few articles were reviewed.

Sarah E. O. Schwartz, et.al, (2017) expressed that social capital assumed a significant role in college and career growth, and the research demonstrated that a lack of on campus association added to the difficulties faced by first generation undergrads in exploring the college environment. This research explores an intervention that centres around the advancement of aptitudes and mentalities to enable first-generation undergrads to develop social capital and on campus associations during the change to college. A blended strategy and a logical plan were utilized to assess effects and procedures of the intervention among first-generation undergrads (n = 164) in an ethnically diverse, urban, state funded college in the Northeast.

Nicole M. Stephens, et.al, (2013) revealed that undergrads who did not have parents who were college educated (first-generation students) earned lower grades and experienced more hindrances to pass out from the college. The undergrads who had at any rate one parent with a 4-year degree (continuing generation students) performed better in academics.

Rashim Wadhwa (2018) reveals that in India, the imbalance of training from the viewpoint of first-generation students has drawn little consideration. In this way, there is a critical need to focus on the issue of how powerful is the impact of first generation in causing educational disparity as the first generation are normally held up with the elements of caste-based inequality in addition to their insufficiency in the social and cultural capital. This study looks into the reasons behind first-and continuing generation students' entry into advanced education and factors which impacts their choice. The methodology of this study included a blended technique approach, and information were gathered from the sample of four hundred first-year undergrads from Jammu and Kashmir,

India. This sample contained 200 first-and 200 continuing generation undergrads. Self-organized survey and semi-organized meetings were utilized for collection of data.

Work Profile of First-Generation Students

This section is carried out to understand the work profile of the first-generation students. A survey was conducted starting from the month of December which ran up to February to understand their job profile. Frequency tables and graphs are used to analyse the data.

The employment profile of the first-generation student gives an overall view of how many people are going for part-time work. A number of factors influencing their education can be studied among the first-generation students who go for work.

Out of 246 sample respondents, 114 sample respondents i.e., (46.3%) responded that they have a regular part-time job, followed by 132 sample respondents i.e., (53.7%) opined that they do not have a regular part-time job. A regular part-time job is a job which is taken by the first -generation learner at least 5 days a week and get paid regularly. It was revealed during the survey that majority of them get called for working in informal sector, which is not very regular.

It is revealed that Swiggy and Zomato has highest number of people employed, ie, 33 sample respondents (28.9%), followed by catering services of12 sample respondents(10.5%), medical, mobile, grocery store of 11 sample respondents (9.6%), sales of 9 respondents (7.9%), driving and hotel of 9 each respondents (14%), loading of 7 sample respondents compromising 6.1%, voice process of 6 respondents (5.3%), water supply and milk distribution of 5 each sample respondents(8.8%), mechanic of 4 sample respondents (3.5%) and RO purifier, Beauty parlour and accounts of 6 sample respondents (5.4%). Thus, it reveals that majority of the sample respondents (28.9%) work with Swiggy and Zomato because of the flexibility of time and ease of enrolling. Here, Swiggy and Zomato tops the charts whereas Ro purifier mechanic, accounting and Beautician jobs has the least.

The hours of work involved is a significant factor as it affects the progress of academics in the college. Out of 246 respondents, 114 sample respondents are working for 2-4 hours, 35 respondents i.e., 30.7%, 54 of sample respondents are working for 4-6 hours i.e., 47.4%, 19 sample respondents comprising of 16.7% are working for 6-8 hours and there are 6 sample respondents working for 8 hours and above which is 5.3%.Hence, it is understood that majority of the respondents who have a part time job (47.4%) are working for 4-6 hours in a day.

It is necessary to know the monthly income range of the respondents who have a part time job as this can influence their aspirations and also motivation to come to college. Table and Figure reveals that out of 114 working sample respondents, 28 sample respondents has a monthly income of Rs 2000- Rs 4,000 (28.33%), followed by 31 sample respondents (27.2%) falls in the income group Rs 4,000- Rs 6,000, 31 sample respondents (27.2%) has an income of Rs 6,000- Rs 8,000 and only 9 (8.0%) has Rs 8,000 and above monthly income. Thus, it is understood that majority of the respondents (54.4%) have a monthly income of Rs 4000-Rs 8,000.

It is also imperative to understand whether the working sample respondents are going for a part time job out of necessity or just to manage their own expenses. Out of 114working sample respondents, (46.5%)of them opined that they have a regular part-time job to support family. They contribute to the annual income of the family. This is followed by 44 sample respondents i.e., (38.6%) mentioned that they pay their college fees by themselves. (9.6%) of the working sample respondents contribute to paying off the loan which the family has taken. There is only (5.3%) of the working sample respondents use it for their own expenses.

As most of the colleges in Chennai works in day and evening shifts, this gives an opportunity for the students to part-time work. When enquired about part-time job, nearly half of the sample respondents were going for a regular part-time job. Most of them working for informal sector with a low paid salary. It was found that majority of them were working for food app

delivery services owing to the convenient time and better pay. The flexibility these companies give attract a lot of students to work for them. They also opined that it works for him as it is like “more work more pay”. Majority of them were getting a salary in the range Rs 4000 to Rs 6000. Most of them worked four to six hours per day which also affected their academic progress. It was also necessary to understand what drives them to go for part time work. Majority of them opined that the do part-time work to support their family.

Factors Hindering the Academic Progress of First-Generation Students.

One of the objectives is to find behavioural hindrances faced by the first-generation students. Understanding these concerns can help faculty and administrators to be alert for potential difficulties and develop strategies to support first-generation students. In this analysis, the interaction between different variables which influences the irrational behaviour of first-generation is studied here. This is done in descriptive statistics with the help of cross tabs and chi-square.

Distribution of Sample Respondents’ Part-time Work and Time to Study.

Hypothesis 1:

H0: There is no association between sample respondent’s part-time job and time to study.

H1: There is an association between sample respondent’s part-time job and time to study.

Table 4.1 Distribution of Sample Respondents' Part-time Work and Time to Study

Time To Study		Part Time Job		Total
		No	Yes	
	NO	12	108	120
		(10.0%)	(90.0%)	(100.0%)
		(9.1%)	(94.7%)	(48.8%)
		[4.9%]	[43.9%]	[48.8%]
	YES	120	6	126
		(95.2%)	(4.8%)	(100.0%)
		(90.9%)	(5.3%)	(51.2%)
		[48.8%]	[2.4%]	[51.2%]
Total		132	114	246
		(53.7%)	(46.3%)	(100.0%)
		100.0%	100.0%	100.0%
		53.7%	46.3%	100.0%
Pearson Chi Square		Value 179.59	Sig. 0.000	

Source: Computed

Cross table 4.1 shows association between having a part time job and time to study. Out of 120 sample respondents who opined that they do not get time to study belongs to 90% of the sample respondents who go for a part time job. At the same time, out of 126 sample respondents who gets time to study does not go for part time job. Thus ,the sample respondents belonging to the category of part time job feels that they do not get enough time to spend for studies as they are going for job.

The significant value of Chi-square statistics which is less than 0.05 reject the null hypothesis that there is no association between sample respondents sample respondent's part-time job and time to study. At 5 percent level of significance, it can be concluded that there is an association between sample respondents sample respondent's part-time job and time to study.

Distribution of Sample Respondents' Part-time Work and Semester Results.

Hypothesis 2:

H0: There is no association between sample respondent's part-time job and current semester results.

H1: There is an association between sample respondent's part-time job and current semester results.

Table 4.2 Distribution of Sample Respondents' Part-time Work and Semester Results

Part Time Job			Current Semester Results		Total
			All Clear	Arrear	
	NO	Count	25	107	132
		% within PART TIME JOB	(18.9%)	(81.1%)	(100.0%)
		% within SEMESTER RESULTS	[71.4%]	[50.7%]	[53.7%]
	YES	Count	10	104	114
		% within PART TIME JOB	8.8%	91.2%	100.0%
		% within SEMESTER RESULTS	28.6%	49.3%	46.3%
Total		Count	35	211	246
		% within PART TIME JOB	14.2%	85.8%	100.0%
		% within SEMESTER RESULTS	100.0%	100.0%	100.0%
Pearson Chi Square			Value 5.182	Sig. 0.017	

Source: Computed

Note: The semester results were taken from each department with the arrear list and pass list.

The cross table 4.2 shows sample respondents holding a part time job and their current semester results. Out of 114 sample

respondents who is going for part-time work, only 10 students (8.8%) have cleared all the papers in the current semester. 104 people, 91.2% have arrears for the current semester. But, that doesn't necessarily mean that students who are not going for part-time job cleared the paper. Only 25 students (18.9%) have cleared all the papers. (81.1%) of the students who do not go for part time job have arrears for the current semester.

Thus, one can conclude that the most arrears in the current semester belongs to students who go for part time job.It is also of great importance to find the steep rates of arrears in the current semester. The significant value of Chi-square statistics which is less than 0.05 reject the null hypothesis that there is no association between sample respondent's part-time job and current semester results. At 5 percent level of significance, it can be concluded that there is association between sample respondent's part-time job and current semester results.

Distribution of Sample Respondents' Submission of Assignments on time and Factors in Delaying the Assignment.

Hypothesis 3:

H0: There is no association between sample respondent's submission of assignments on time and factors which leads to delay in assignment.

H1: There is an association between sample respondent's submission of assignments on time and factors which leads to delay in assignment.

Table 4.3 Distribution of Sample Respondents' Submission of Assignments on time and Factors in Delaying the Assignment

Factors leading to delay in assignment submission		Submissions Of Assignment On Time		Total
		yes	no	
Time Constraint	Count	0	43	43
	% within Factors leading to delay in assignment submission	0.0%	100.0%	100.0%
	% within Submissions of Assignment	0.0%	21.8%	17.5%
Procrasti-nation	Count	49	154	203
	% within Factors leading to delay in assignment submission	24.1%	75.9%	100.0%
	% within Submissions of Assignment	100.0%	78.2%	82.5%
Total	Count	49	197	246
	% within Factors leading to delay in assignment submission	19.9%	80.1%	100.0%
	% within SUBMISSI-ONS OF ASSIGNMENT	100.0%	100.0%	100.0%
Pearson Chi Square		Value 12.961	Sig. 0.000	

Source: Computed

Note: *The assignment submission data of previous semester was collected from the respective department of the students.*

The cross table 4.21 shows sample respondent's submission of assignments on time and the factors leading to delay in submission of assignments. Out of 246 sample respondents, 197 students (80.1%) did not submit assignment on time and only 49 students submitted on time. One of the leading factors is procrastination with (75.9%) where they never submitted the assignment on time and 49 students (24.1%) even though they procrastinated, they submitted on time. All 43 sample

respondents (100%) who felt time constraint as a factor did not submit on time.

Thus, one can conclude that there is a strong association between procrastination and delay in submitting the assignments. The significant value of Chi-square statistics which is less than 0.05 reject the null hypothesis that there is no association between sample respondent's submission of assignments on time and factors which leads to delay in assignment. At 5 percent level of significance, it can be concluded that there is association between sample respondent's submission of assignments on time and factors which leads to delay in assignment.

This chapter dealt with factors which makes it difficult for the first-generation students to succeed in college education. It was found that there is an association between sample respondents' part-time job and time to study. The sample respondents belonging to the category of part time job feels that they do not get enough time to spend for studies as they are going for job. It was important to find the steep rates of arrears in the current semester. It was found that the most arrears in the current semester belong to students who go for part time job. Through descriptive statistics, it was found that procrastination was one of the dominant factors in delaying the assignments.

Methodology and Results of Behavioral Interventions

A rational first-generation should ideally have a good attendance track, on-time submissions of assignments and also good grades for all the exams conducted. If he/she is going for part time also, he/ she should be able to manage both academics and work. In the previous analysis of both socio-economic survey and behavioral survey, we listed out the challenges or behavioral hindrances faced by them.

In this section, a list of interventions which was undertaken in the past 7 months are analyzed. The interventions are directly targeted at their irrational behavior in a libertarian paternalistic way. All the interventions have strong backing of behavioral economics theory. What we strongly believed during the course

of the project was not to push any student to achieve what we wanted. That would sound a lot like paternalistic but what we targeted was soft paternalism. The libertarian aspect of these interventions encourages first-generation students to be free to do if they like and opt out whenever they feel like. The paternalistic aspect about these interventions is that to influence first-generation students' behavior by changing choice architecture in order to make them academically progressive.

With the below listed interventions, we have only tried to nudge for what they have desired to reach. With the help of data collected from parents, teachers and students, it was found that there were few areas where students struggled and needed immediate interventions. The areas where we instilled interventions are

The roadmap of interventions is as follows:

- Introduction to the problem.
- Behavioral theory
- Behavioral tools
- Hypothesis (if any)
- Methodology
- Results of the experiments.

Attendance

Attendance is usually calculated as per university requirements of number of working days. Usually it falls between 85 to 90 days for each semester. As per the university rule, a student should maintain at least 75% to write university exam. If the attendance level falls between 65%-75%, one can pay condonation fees and appear for the exams. The university also allows applying for sick leave if medical certificate is produced. If the attendance percentage falls below 65%, the student will be detained and won't be allowed for writing university exams.

All the faculty members are required to keep an attendance register. Each department is required to keep a master attendance where all subjects would be included.

One of the biggest challenges which was found was lack of attendance among first-generation learners. There is always a pattern to it where risk students keep falling below 75% and 65%. Through observation and attendance data analysis, it was found that a person who has a high attendance kept maintaining that level and a person who has a low attendance tends to get detained or even dropped out.

This intervention was basically targeted for people with lack of attendance. In the first semester, students with the lack of attendance were noted. A number of traditional methods like informing them about their attendance percentage at the end of each month and advising them about irregularity were adopted. Thus, an innovative method using behavioural techniques were introduced in the even semester.

Behavioural Theory

Status quo bias- Status quo bias is an emotional bias for the current state of mind. Any change from the current status is considered as loss. First-generation student has a strong tendency to remain at the status quo because the cost of leaving it will not make him/her comfortable. It could be of various reasons that he is not coming to college. This bias surely makes him/her feel comfortable where ever he is. Here, the change from the previous pattern could be very challenging. Status quo bias can be also attributed to cognitive overload.

Cognitive overload- When a lot of information is bombarded by all the faculties, it would make him feel overloaded with unnecessary information which could also discourages him to attend college regularly.

Behavioural Tools

Anchoring and adjustment- Anchoring and adjustment is a cognitive phenomenon where a person’s behaviour can be adjusted based on an idea. If the anchoring has to be effective, it is essential to make the person aware of anchoring. Through anchoring students can solve the problems of attendance from the starting point that is then adjusted to generate desired attendance level.

Hypothesis 4

Ho: There is no significant difference between the means of experimental and control group after the attendance intervention.

H1: There is significant difference between the means of experimental and control group after the attendance intervention.

Methodology

A total of 130 students were randomly chosen for this experiment who had either lack of attendance in the previous semester or were irregular in the current semester. A total of 65 students were in the experimental group. Another set of 65 students were served as the control group where this particular intervention was not given. But they were provided with the traditional intervention of informing their attendance percentage of classes attended.

- The attendance data of all the 130 students from the experimental group was taken from the master attendance of the concerned department from the month of December.
- The total number of days attended by the students were recorded in an excel sheet.
- Another 4 columns were added namely, Total required days for 75% and above, Total required days for 65% to 75%, Days left for semester and Reserve days.
- The above columns were updated regularly and it clearly gave a picture of high-risk students, medium-risk students and low-risk students.
- Every end of the week, high-risk and medium-risk students were informed through messages about how many more days they have to come to college to achieve their desired level. The low-risk students were given subtle warning to not fall into below 75% category.
- When there were improvements in their attendance, messages of appreciation were also sent.

The main outcome of the intervention was to test whether the attendance intervention had improved the attendance of first-generation students. In the first-year classroom, the difference in post intervention attendance between treatment group and control group was 16.44 Standard deviation for the month of December. The measured effect is larger in the second month, January and February at 13.14 and 11.20.

Using t-test, we computed the p-value for 3 months for 2 independent groups. The dependent variable is attendance, measured for 3 months and independent variable is intervention. A paired sample t test was conducted to evaluate whether a statistically significant difference existed between the control group and experimental group for the month of December. Assumption testing indicated no gross violation of assumptions. The results of paired sample t test were insignificant, $t(24) = 0.853$, $p > 0.05$, $n=25$, indicating that there is an insignificant increase in attendance from control group ($M=61.680$, $SD= 11.28$, $N= 25$) to the experiment group ($M=62.440$, $SD= 16.44$, $N= 25$). The mean increase is 0.76, with the confidence interval for the difference between means of -7.62 to 9.14. The researcher accepted the null hypothesis that there is no significant difference between the means of experimental and control group after the attendance intervention for the month of December.

Table 4.3 Paired Sample Statistics for Attendance

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	DEC	61.680	25	11.2832	2.2566
	DEC	62.440	25	16.4420	3.2884
Pair 2	JAN	39.200	25	4.2525	.8505
	JAN	55.200	25	13.1434	2.6287
Pair 3	FEB	68.000	25	7.0415	1.4083
	FEB	84.280	25	11.2009	2.2402

Table 4.4 Paired Differences for Attendance

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	DEC - DEC	.7600	20.3045	4.0609	-7.6213	9.1413	.187	24	.853
Pair 2	JAN - JAN	16.0000	14.1686	2.8337	10.1515	21.8485	5.646	24	.000
Pair 3	FEB - FEB	16.2800	16.2289	3.2458	9.5810	22.9790	5.016	24	.000

A paired sample t test was conducted to evaluate whether a statistically significant difference existed between the control group and experimental group for the month of January. Assumption testing indicated no gross violation of assumptions. The results of paired sample t test were significant, $t(24)=0.000$, $p<0.05$, $n=25$, indicating that there is a significant increase in attendance from control group ($M=39.20$, $SD=4.25$, $N= 25$) to the experiment group ($M=55.200$, $SD= 13.14$, $N= 25$). The mean increase is 16.0, with the confidence interval for the difference between means of 10.15 to 21.84. The researcher rejected the null hypothesis that there is no significant difference between the means of experimental and control group after the attendance intervention for the month of January.

A paired sample t test was conducted to evaluate whether a statistically significant difference existed between the control group and experimental group for the month of February. Assumption testing indicated no gross violation of assumptions. The results of paired sample t test were significant, $t(24)=000$, $p<0.05$, $n=25$, indicating that there is a significant increase in attendance from control group ($M=68.000$, $SD= 7.04$, $N= 25$) to the experiment group ($M=84.28$, $SD= 16.44$, $N= 25$). The mean increase is 0.76, with the confidence interval for the difference between means of 9.58 to22.97. The researcher rejected the null hypothesis that there is no significant difference between the means of experimental and control group after the attendance intervention for the month of February.

Assignments

Assignments are dreadful for any student. It is a lot of reading, searching and finally writing for hours to submit on time. For a first-generation student, it becomes more difficult as he doesn't get time to read or search for the topics or even to submit on time. A rational first-generation student submits a quality assignment on time. But, in reality how many rational students we find? From the previous semester data, we found that most of the students submit on the very last day of the semester, that too with less quality. From the behavioural survey it was found that out of 246 sample respondents, 197 students (80.1%) did not submit assignment on time and only 49 students submitted on time. One of the leading factors is procrastination with (75.9%) and time constraint (21.8%).

This experiment was also targeted for 130 students who were lagging in submitting assignments for the last semester.

Behavioural Theory

Loss aversion-Loss aversion refers to people's tendency to avoid losses to acquiring equivalent gains. In order to avoid certain behaviour, people tend to use costly techniques to avoid such behaviour. This theory is very useful when it comes to understanding procrastination.

Procrastination¬¬- Procrastination is the unnecessary delay of doing what is needed to be done. People can procrastinate for a lot of reasons. But students procrastinate assignments mostly due to disorganized use of their time and materials. Sometimes, they are clueless about what to be written.

Behavioural Tools

Data framing-Framing an outcome as a loss causes individuals to expend extra effort to avoid that outcome (Tversky & Kahneman, 1991).The framingeffect is a cognitive bias where people decide on options based on whether the options are presented with positive or negative connotations; e.g. as a loss or as a gain.

A large literature on loss aversion and reference dependent preferences suggests that people are moreresponsive to incentives framed as losses than to incentives framed as gains (Kahneman and Tversky 1979; Tversky and Kahneman 1991; Ariely et al. 2005).

Hypothesis 5

Ho: There is no impact on submission of assignments on time when there is a reward.

H1: There is an impact on submission of assignments on time when there is loss aversion.

Do reward help students to submit assignments on time or a feeling of loss helps students to submit on time?

Smaller rewards given immediately may be more motivating than the promise of larger rewards several months down the road.

Methodology

Participants: This study took place during even semester at the college. Participants were 128 students, most of whom participated in the class who had previous history for late submissions. There were 4 instructors for this experiment. One part of the course requirements was to write minimum two assignments.

Procedure: During the second month of the semester, the instructor read out the instructions for the assignment. Students in the control section (64 students) were asked to choose date for submission before the second internal exam (1st CIA). They were given instructions as follows “You are required to submit 3 assignments for current semester in two phases. In phase I, you are supposed to submit 2 assignments and you are free to fix the date. If you are submitting 2 assignments on the date which you have chosen, you are exempted from doing third assignment in phase II. But, if you are not submitting on the chosen date, then you are required to give three assignments together on the next date of the deadline. Students who are planning to submit on the

last date of the semester will be asked to do the highest number of assignments.

This experiment gave the students a reward which can be termed as a gain if they chose to submit on time. Here, the main factor what we were checking was how many of them were submitting on stipulated deadline. Students in the experimental group were also asked to fix a date for submission of assignments before the second CIA. Instructions were followed as “You are required to submit only 2assignments for this semester in II phases. You are free to fix the date. Those who are not submitting on the chosen date, you are required to give three assignments together on the next date of the deadline”. Students who are planning to submit on the last date of the semester will be asked to do the highest number of assignments.

This experiment gave the students a sense of loss or can be termed as an extra cost if they didn’t submit on time. The instructions for the students in both the sections indicated that students were free to choose the dates of submission. But they agreed on a common date after a discussion. Four external constraints were set regarding the dates: first, students had to submit their assignments not later than the last class of the semester; second, the dates were final and could not be changed; and third, the dates were binding. Finally, it was explained clearly that there were no grade advantages for early submissions because the instructor would not disclose the marks until the semester ends.

Table 4.5 Conditions for Assignment Submission

CONDITIONS	CONTROL GROUP	TREATMENT GROUP
Requirement	Submission of 3 assignments for current semester in two phases.	Submission of 2 assignments for current semester.
Choice	Phase I- 2 assignments- free to choose any date before the end of the first internal test	Phase I- 2 assignments- free to choose any date before the end of the first internal test
Gain	Phase II- 1 assignment- free to choose any date before the end of the second internal test. If 2 assignments are submitted on or before the phase I deadline, you are exempted from doing third assignment.	
Loss		If you haven't submitted 2 assignments on set deadline, you are required to choose another date before the second internal test for 1 more assignment.

Source: Computed

Table 4.6 Paired Samples Statistics for Assignments

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	submission 1	3.569	65	1.7045	.2114
	submission	2.585	65	1.8105	.2246

Source: Computed

Table 4.7 Paired Differences for Assignments

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	submission 1 – submission	.9846	2.4968	.3097	.3659	1.6033	3.179	64	.002

Source: Computed

A paired sample t test was conducted to evaluate whether a statistically significant difference existed between the control

group and experimental group. Assumption testing indicated no gross violation of assumptions. The results of paired sample t test were significant, $t(64)=0.002$, $p<0.002$, $n=65$, indicating that there is a significant increase in submission in assignments from control group ($M=2.585$, $SD= 1.81$, $N= 65$) to the experiment group ($M=3.56$, $SD=1.70$, $N=65$). The mean increase is 0.98, with the confidence interval for the difference between means of 0.36 to 1.60. The researcher rejected the null hypothesis. One can also conclude that average mean difference of 0.98 is not due to chance variation and can be attributed to loss aversion behavior.

In this experiment, the submission of third assignment is the aversive stimulus that the student is trying to avoid by submitting the first two assignments on time. This is increasing the likelihood of students' behavior of submitting assignments on time.

Notably, there was no effect on the completion rate, as all of the students completed all the three papers regardless of the treatment.

Creating Positive Affirmations Among First Years by Disclosing the Results of Kettlemind App

This experiment was conducted exclusive for first years as from the behavioral survey they were asked to associate their emotions with their progress in college. The researcher read out various statements like, "I'm confident that I can manage the academics", "I'm less confident about myself as I keep getting low marks", "I struggle between academics and work life balance", "I do not know what how to go about", " My academic scores do not reflect what I'm capable of".

A total number of 60 students and 2 instructors participated in this. 7 students dropped out as they were not available. From the survey, it was revealed that majority of the first-years (40%) were less confident about themselves as they keep getting low marks in academics. Another (33%) felt that they did not have much clue about how to go about in college. (15%) of the respondents strongly felt that they were confident that they can

easily manage the academics. Only 2% reflected that it is a struggle for them to manage both work and academics. (10%) of the strongly opined that their academic scores did not reflect their capabilities.

The entire experiment was conducted over a span of one week's time. Instructors were given a module of instructions about how to conduct this experiment and also stated the purpose. Both the module and statement are attached hereby. Instructors were familiar to the students and they taught for them. This experiment was done to create a positive affirmation on the minds of students. From the behavioral survey, it was also found that nearly 60% of the students do not have higher aspirations. They also doubted their ability to come up in life and also take new challenges. This experiment was done to evaluate whether positive affirmations has any impact on their test scores. Positive affirmations encourage positive expectation from the students.

The use of KettleMind app invoke their curiosity to know how well they are performing in these games. Kettlemind has simple games on cognitive abilities which anyone can do. The results of Kettlemind can give them a positive mental attitude supported by affirmations which will help them to succeed in academics. The kettlemind app acts as a tool of priming them to believe that they have capabilities to cope up with the academics. Researchers believe these interventions work by helping students become more resilient and self-assured. These interventions can also have long-lasting effects, with 'affirmed' students performing better over a number of months.

Behavioural Tool

Priming- Priming is a technique whereby exposure to one stimulus influences a response to a subsequent stimulus, without conscious guidance or intention. This technique is used as we identified there are many first-years who are low in confidence and doubt in their capabilities. But, in this experiment, we selected the participants in a random manner.

Behavioural Theory

Positive affirmations – Positive affirmations are described as brief phrases, repeated frequently, which are designed to encourage positive, happy feelings, thoughts, and attitudes. It is thought to change the behaviour of people who are less confident.

Methodology
Equipment required: Smartphone, Kettlemind app

A randomly selected name list of 53 students from the first-generation database was given to the instructors. All 53 students were from different classes of 3-year degree courses. Kettlemind is a brain training app where different games for memory, focus, arithmetic and word building can be played. It is a paid subscription app. All the students were randomly given praises without considering the scores. All games were conducted in a one-to-one session.

Stage I

Before the starting of the game, the instructor prepared a excel sheet to note down their names, year, department, phone numbers and sessions which they belonged to. Each student was given a different set of games based on memory, focus, arithmetic and word building. They were given instructions about how to play at the beginning of each game and the games were time bound. They were also briefed about why they are doing this. At the end of each game, scores would be displayed on the mobile which the instructor had to note down without showing to the students. For students who wanted to play the game again were also given chances. Irrespective of the scores, the instructors had to display a gesture of surprise to the students of experimental group that they have done a good job. This is the first step of positive affirmation where they were primed. Priming is a technique whereby exposure to one stimulus influences a response to a subsequent stimulus, without conscious guidance or intention.

Stage II

The second stage of priming was done through informing participants about their test scores and ranking among the peer group. As the participants had taken different games, instructors were asked to rank them from 1 to 5 without looking into the scores. The students were informed about their scores verbally and through text messages privately. The following week, in a one to one session with their respective instructors, they were told that their capabilities are far higher than the average student's score. They were briefed about their cognitive abilities which they can use for their academic progress and told them that they expect higher grades from them.

Stage III

In the third stage, evaluation of the experiment was conducted. Each of the instructors conducted tests thrice in a month based on their subjects and they kept in mind who had undergone the experiment. The test scores were shared with the researcher. The course instructors were asked to monitor their progress for the entire semester and were asked to remind them about their outstanding capabilities through personal messages.

The results of the analysis are as follows:

We used a simple chi square statistical analysis to find out if there is any association between positive affirmation and the test scores. The test scores were taken from the respective faculties for all three tests.

Hypothesis 7

Ho: There is no significant association between positive affirmations and test scores.

H1: There is significant association between positive affirmations and test scores.

Table 4.8 Distribution of Sample Respondents' Positive Affirmation and Test Score for the First Test

Positive affirmations			Test score			Total
			0-4 MARKS	4 MARKS-8MARKS	8 MARKS AND ABOVE	
	no	Count	27	0	0	27
		% within positive affirmations	100.0%	0.0%	0.0%	100.0%
		% within test score	100.0%	0.0%	0.0%	51.9%
	yes	Count	0	23	2	25
		% within positive affirmations	0.0%	92.0%	8.0%	100.0%
		% within test score	0.0%	100.0%	100.0%	48.1%
Total		Count	27	23	2	52
		% within positive affirmations	51.9%	44.2%	3.8%	100.0%
		% within test score	100.0%	100.0%	100.0%	100.0%
Pearson Chi Sqaure			Value 12.961	Sig. 0.000		

Source: Computed

The cross table 4.9 shows sample respondent's relationship between positive affirmation and higher test score in the first test. Those who received intervention on positive affirmation scored better in test. 92% scored marked between 4 marks to 8 marks and 2 students scored 8 marks and above.

Table 4.9 Distribution of Sample Respondents' Positive Affirmation and Test Score for the Second Test

positive affirmations			Test score2			Total
			0-4 MARKS	4 MARKS-8 MARKS	8 MARKS AND ABOVE	
	no	Count	22	5	0	27
		% within positive affirmations	81.5%	18.5%	0.0%	100.0%
		% within test score2	100.0%	55.6%	0.0%	51.9%
	yes	Count	0	4	21	25
		% within positive affirmations	0.0%	16.0%	84.0%	100.0%
		% within test score2	0.0%	44.4%	100.0%	48.1%
Total		Count	22	9	21	52
		% within positive affirmations	42.3%	17.3%	40.4%	100.0%
		% within test score2	100.0%	100.0%	100.0%	100.0%

Source: Computed

The cross table shows sample respondent's relationship between positive affirmation and higher test score. Those who received intervention on positive affirmation scored better in test. 84% scored 8 marks and above, 16% of the students scored between 4marks-8marks. Thus, one can conclude that there is a strong association between positive affirmations and high-test scores.

The significant value of Chi-square statistics which is less than 0.05 reject the null hypothesis that there is no significant association between positive affirmations and test scores.At 5 percent level of significance, it can be concluded that there is association between sample respondent's positive affirmations and test scores.

Learning Activities

One of the foremost challenges faced while teaching first-generation learners is that to get their attention in a classroom. From the behavioural survey, it is found that 46% of the sample respondents go for part time job and this makes it difficult for them to listen to the lectures. Traditionally, almost all lectures are also centred around teachers and this does not evoke any motivation towards learning. From the past semester result analysis, it was found that the pass percentage among first-generation sample respondents were low. We tried, tested and analysed different techniques to improve knowledge, classroom engagement and finally increase the test scores. The learning activities planned were divided through group activities. Student's engagement in the classroom and increase in knowledge of the subject was done through using collaborative technologies like google classroom and Kahoot! app.

Google Classroom

The Digital Technology has influenced all aspects of human life. Education is not an exception, understanding technology use at the level of pedagogical engagement will provide us valuable insights into their relationship with teaching and learning. Pedagogy is about the various forms of interaction between three agents: teacher, student/s and knowledge domain. These

three agents comprise of three elements in a triangle of interaction (Garrison and Anderson, 2002).

Google classroom can be considered as a complementary tool in an educational setting for the smooth conduct of the course. It helps in planning, executing and sharing information of their respective subjects to the students. From the student's survey, it was found that 221(90%) sample respondents had their own personal smart phones which made it easier to install this app.

Methodology

Students were asked to install Google classroom in the beginning of the odd semester (July to November). There is no subscription needed for this. The number of instructors participated were five, teaching for all three years. All the instructors were asked to form a Google classroom and share the access code to respective classes. After the successful enrolment of students, instructors started uploading lesson plan, activities planned for the current semester, assignment and seminar schedules, daily lecture notes. They had also shared videos and links of their respective subjects. Students were encouraged to comment, share and discuss in the group.

It was quite a challenge to understand the short term and long - term effects of use of Google classroom app. For Google classroom app, turn up number and interaction of students in the app were considered from the month of August 2019 to January 2020. A total of 210 first-generation had installed in the beginning of the semester which accounts to 85 % of the sample population. Once again when we checked in the month of November, nearly 87 first-generation students uninstalled owing to the reason that it is taking a lot of space.

But, in the month of January, 2020, there was a steep decline of members in all Google classroom from 210 to 66 first-generation students.

Kahoot! App

Technology is being increasingly integrated into teaching environments in view of enhancing students' engagement and

motivation. In particular, game-based student response systems have been found to foster students' engagement, enhance classroom dynamics and improve overall students' learning experience. This experiment presents outcomes of research that examined students' experience using a game-based student response system, Kahoot! We conducted semi-structured interviews with students to learn about the extent to which Kahoot! influence classroom dynamics, motivation and students' learning process. Key findings revealed that Kahoot! enriched the quality of student learning in the classroom, with the highest influence reported on classroom dynamics, engagement, motivation and improved learning experience. Our findings also suggest that the use of educational games in the classroom is likely to minimise distractions, thereby improving the quality of teaching and learning beyond what is provided in conventional classrooms. Other factors that contributed to students' enhanced learning included the creation and integration of appropriate content in Kahoot! providing students with timely feedback, and game-play (gamification) strategies.

Kahoot! is a game based free subscription app for learners. One can use the games already made in the app or one can create new topics. This can be played by whole class in real time where only MCQs will be projected on the screen and students can answer with laptop. Although, Kahoot is been used majorly by K-12 students in the US, its applicability is not just limited to school students. This is more effective when it is played as a group activity.

Hypothesis 6

Ho: There is no difference on the test scores when conducted after playing Kahoot

H1: There is a difference on the test scores when conducted after playing Kahoot

Methodology

Equipment requirement: Projector, Laptop and Mobile

This experiment was conducted during the even semester (December to February). Students from all the three years participated in this. Students in each class was divided evenly into four groups.

- Four instructors logged in to the kahoot.com on laptop.
- Entered the title, description and gave preference for visibility as all.
- The questions asked were both true or false and MCQ.
- Each instructor made 3 kahoots each for one week.
- The time limit for answering each question was set as 10 sec.
- At the end of each chapter, one class was completely dedicated for playing kahoot with the help of laptop and projector.
- The instructors also send Kahoot in Google classroom as assignments.

As Kahoot was played at the end of each chapter, it enabled students to test the knowledge which they have learnt through out each chapter. To quantify this and also to validate the results, a test was conducted each time after Kahoot was played. Kahoot! was played twice in four classes. All together four tests were conducted in the month of December and January. One of the tests was conducted after a revision and another test was conducted after playing Kahoot in both the months. The results are as follows:

Table 4.10 Paired Samples Statistics for Kahoot App

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	december	5.42	50	.928	.131
	december	7.08	50	1.007	.142
Pair 2	January	3.38	50	1.427	.202
	January	7.12	50	1.365	.193

Source: Computed

Table 4.12 Paired Differences for Kahoot App

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	December – December I	-1.660	1.409	.199	-2.060	-1.260	-8.333	49	.000
Pair 2	January - January I	-3.740	1.601	.226	-4.195	-3.285	-16.517	49	.000

Source: Computed

The main outcome of the intervention was to test whether playing Kahoot had improved the test scores of first-generation students for class tests. The table 4.5.3 shows the difference in post intervention attendance between treatment group and control group was 16.44 Standard deviation for the month of December. The measured effect is larger in the second month, January and February at 13.14 and 11.20.

A paired sample t test was conducted to evaluate whether a statistically significant difference existed between the control group and experimental group. Assumption testing indicated no gross violation of assumptions. The results of paired sample t test were significant, $t(49)=0.000$, $p<0.000$, $n=50$, indicating that there is a significant increase in tests from control group ($M=5.42$, $SD= 0.98$, $N= 65$) to the experiment group ($M=7.08$,

SD=1.007, N=65). The mean increase is 1.66, with the confidence interval for the difference between means of 2.06 to 0.199. The researcher rejected the null hypothesis and accepted the alternative hypothesis that there is a difference on the test scores when conducted after playing Kahoot.

Support Group Sessions for Working Individuals with Upper Year Students

Sociologists and psychologists have used the method since the 1940s (e.g. Merton & Kendall, 1946; Merton, Fiske & Kendall 1956). However, its popularity and application has grown across a wide range of disciplines including education (Flores & Alonso, 1995), communication and media studies (Lunt & Livingstone, 1996), sociology. From the survey, it was found that nearly 46.34% of the sample respondents go for part time jobs. A successful support group system creates a conducive platform for the participants to open up. Multiple support group sessions were conducted targeting people who were going for part-time jobs. These sessions were conducted on campus to share their concerns and questions to upper year students. Support group sessions are also a good way to get in-depth information about first-generation students who goes for work and the problems faced by them.

Methodology

- The support group that was conducted had a specific and clear objective which is addressing the issues and concerns of working individuals.
- A total of 5 sessions were conducted in 2 months according to the availability of the rooms and free hours.
- There were nearly 48 students+19 students (NCC, NSS) who volunteered to come for the session which compromised of both first-year students and second year students.
- A training program was given to the facilitator about which areas to be addressed. The control of the entire session was given to the facilitator but moderated by the researcher.

- A highly successful third-year degree student recognized as a first-generation student who also had a part-time job was the facilitator for a session with second-year students.
- A highly successful second-year degree student recognized as a first-generation student who also had a part-time job was the facilitator for a session with first year students.
- A separate session was conducted for cadets of NCC and NSS to address the issues faced by them.
- The number of participants per support group ranged from 3 to 15 participants with a median of 10 participants. There were altogether five (median) support group meetings till February.
- Support group discussion sessions lasted for 50 (median) minutes.
- Transcripts of the focus group interviews were only accessible by the researcher.
- The identity of all study participants was protected throughout the study.

In the first two sessions, the facilitator opened up about his experience as a first-generation learner. The facilitator also addressed his challenges while going for part-time job. All the participants were encouraged to open up about their issues which impedes the progress in college. The researcher noted down all the experiences shared by the participants. According to the transcript analysis, three main areas were discussed throughout the five sessions.

1) Whether a part-time job was a necessity or just a way to have additional income?
2) The lifestyle challenges which they face.
3) What improvements they can adopt to succeed in college?

In the third session, the facilitator asked questions to identify whether a job is quintessential for their survival. With all the responses, it was concluded that nearly 41 students (85%) of the

participants found it as a necessity for going for a job. It was mainly to support the family and also to pay their college fees. 15% of the participants owned up to saying it was for their expenses that they were going for part-time work.

Here, the facilitator discouraged the idea of going for part-time work as it can completely put the studies off track. He had mentioned that it was a good idea to do part-time work in the third year after making sure to clear all the papers. He also emphasized to spike up the percentage in the first two years. He also tried to make them understand the detrimental effects of carrying the arrears from the first semester.

In the fourth session, the participants were asked about their pattern of sleep and time at which they have their meals. Almost 43 students (90%) of the participants agreed that they have either issue with sleep or food. The facilitator enlisted a method which he also adopted to have a work-life balance. He encouraged them to have all the three meals at a particular time of the day which will make sure that everything else will fall in place. They were asked to follow it up for the next session.

In the final session, the instructor had a discussion about how they can finish their assignments on time and scale up their marks for internal and semester exam. The instructor then gave different improvement techniques which are practical and can be adopted by all the participants. For the participants who found it difficult to finish assignments, they were asked to come to college a bit early and finish their assignment is college itself. The participants had also mentioned that they had never taken internal exams seriously. So, they were asked to appear for all the tests with at least studying for two questions.

A session with NCC and NSS cadets was conducted by an upper year NCC cadet to help them to sail through the college. There were 19 students who volunteered to come. Majority of them agreed to the fact that they are not getting to know anything which is happening in the class because of absence from the class. The instructor encouraged them to have a strong relationship with the faculties to finish their degrees. The instructor also emphasized the use of google classroom to get to

know all the important announcements. All the participants were encouraged to appear for all the internal exams without fail. This would in turn help them to ease their load in the final exam.

In one of the sessions, few participants addressed the fact they would want to get to know the job opportunities available in and around the city. They requested for a point of contact with the placement management to know different opportunities.

The last leg of this study was to conduct experiments on the first-generation students by considering socioeconomic status of the family, behavioural and work profile of students, and behavioural hindrances. These interventions targeted a particular behaviour and attempted to modify in order to achieve desired results which they wanted. Interventions are very methodological and include procedures. The first intervention was targeted on lack of attendance. It was found that there was an increase in the attendance level of the first-generation students after the interventions were targeted. One of the biggest issues all the faculties face is timely submission of assignments. In order to target this behaviour, options were reframed and given where a sense of loss aversion was instilled. This led to a massive change in the submission of assignments. As these students belong to generation z, it was assumed that they would respond more to digital innovative techniques of learning. It was found that app like google classroom initially were very popular among them, later on it was uninstalled from all of their mobiles. Interestingly, Kahoot app made their learning interesting as it uses games to impart knowledge. It was also important to instil positive affirmations among them as they naturally lack confidence in them. Although, it was a time-consuming procedure, instructors were happy to realise one can instil positive affirmations by manipulating results of tests. Separate sessions were conducted among these students who were going for part-time work and those who were active in organizations like NCC and NSS to learn how to manage their time and to unleash their aspirations. Seniors among themselves conducted these sessions to make it very comfortable for them.

Conclusion

As social and cultural capital influences a first-generation student, it was important to understand their parental and siblings' educational and occupational status, income, their expenditure pattern, etc. It was also important to know which community they belonged to. The majority of the first-generation belonged to scheduled caste category and the least represented in this survey was the from the general category. It was also noted that a few of the parents had either died or separated which would have also had a huge impact on a student's life.

This socio-economic analysis threw light upon their decision-making power when it comes to attending colleges. Even though, they get admitted to college with the support of their parents and siblings, it is difficult for them to navigate all throughout three years. Most of the times, they are challenged with everyday needs and this makes them to lose focus in studies. In the initial years, parents actively take a lot of initiatives to put them to college. They even work hard and save money to put them to college. Eventually, as circumstances change, a lack of commitment arises from the parents' side. This eventually fall on the first-generation students and they end up taking sole responsibility of paying fees. To conclude, with the help of surveys and observation, the exact problems of first-generation students were analysed. This paved the way for forming interventions which helped them to progress academically. It is said that 70% of the decisions are based on context rather than on individuals. Certain policies require only minor changes in how certain aspects are perceived which can contribute to major changes. When situations are altered according to the hour of need, there could be progress in their life. They would excel in academics and as well as build their own aspirations and eventually contribute more to the society.

Policy Recommendations

In the recent times, a lot of importance is given to higher education in India. A lot of policies focussing on higher

education are there to support different communities in India. It is sad that the government is not taking any active decisions to identify and recognise first-generation students. Most of the identifications in education setting is given on the basis of religion and caste. It is high time that government should have a policy for the first-generation students.

In the western world, most of the governments are able to target first-generations students. They have specific research centres which conduct studies about them. As we have the youngest population in the world and also increasing literacy rates, it is imperative to start a centre for first-generation students. These institutes could target the issues faced by them and bring a comprehensive policy to help them sail through colleges.

If a separate centre for first-gen learners is a long way, at the least, colleges working with more than half of first-gen learners should be recognised and assistance should be given. For that, a separate database should be maintained to record timely changes in their attitude and perception. Most of these works is maintained by counsellors who are psychologists in the colleges. They may be better trained in their professions, but the role of college counsellor is minimal compared to teachers who deal with them on a day-to-day basis. So, it is practical to have teachers as volunteers from every department in a college to record and maintain first-gen student's data. They should be also encouraged to make a framework for different behavioural interventions to help them to succeed in the college.

It is more about attitudes and believes while working with first-gen learners. Educators should be able to inculcate perseverance among them. The attitude of educators should be also targeted as they already keep in their minds that they are incapable to come up in life. In colleges, separate sessions and training for both educators and first gen learners should be given. For educators, behavioural toolkits should be provided to target specific behaviours. Educators should be more aware about their struggles and confusions they face. Such struggles have an impact on their cognitive abilities and impede good decision making.

Field experiments should be given more importance for research studies based on first-generation learners, as it would provide a practical toolkit for implementation. It might be difficult to generalize the impact of the experiments, but it would surely give an idea how behaviours can be targeted. The approach towards first-gen should be also more humanistic rather than logical and methodological.

Scope for Further Research

Through the surveys and observations, it was understood that the first-generation students go through a lot of struggles which deteriorates their decision-making skill. So, this gets applied in all major levels. This particular project was based on the educational aspect. The suboptimal decisions are made in day-to-day activities when there are associated problems. It is not that individuals end up taking suboptimal decisions. It is rather that everybody aims for making the best decisions but when encountered with problems, succumbs to suboptimal decisions. This methodology of forming interventions through carefully examining the behavioural hindrances can adopted in other fields like health, savings and loan payments. Policy makers can carefully look into the behavioural hindrances and construct interventions which would push them to make better decisions in life.

With respect to this project, this analysis formed the basis for the foundation of a behavioural lab for the first-generation students in the college. As all the details of the first-generations students are meticulously entailed, it would be easy to track and form different interventions to make their life better. This also widens the scope for effectively constructing the interventions in related fields like fee payments, loan payments, savings and health for the incoming students.

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5

Strategies in Health Care Promotion and Subjective Well-Being: A Study Based on National Rural Health Mission

Deepa B

A non-economic explanation to economic phenomena, which lies beyond the boundary of the dominant neo-classical economic thought, was the highlight of the last few decades. These initiatives doesn't prefer to remain under one domain, but rather gains strengthen and substance from other related disciplines or even ventures into the domain of pure sciences for its validation. This line of reasoning has led to a revival in research bridging economics to sociology and in this respect the concept "social capital" becomes a major point of attraction. Can this bridging of disciplines be regarded just as revival or rather is viewed as the awakening of the old sociology-economics bonding that got eroded with the onslaught of new entrant - the neo-classical tradition?

Capital, one of the principal factors in economic development, will lead to better utilization of available resources and increases the size of national output, income and employment. This myopic vision towards a particular factor ought to be regarded as the main reason for all economic evils that we witness today. But there are certain other ingredients that doesn't has voluminous presence but it is vital in sustaining human life like social support, physical and social security, freedom of expression, opportunities for development and a host of other items/components that encompasses the term Social Capital.

Social capital, which emphasis reciprocity between individuals is impossible to be imparted through Public Policy. Its effects can be witnessed in many spheres like reduction in economic costs, strengthening of political associations, etc, that ensure the success of modern democracy. Though the concept gained

popularity in academic sphere only in the late 1990s with the initiative of World Bank projects, but traces of it can be seen right from 1945.

Social capital refers to the institutions, relationships, and norms that shape the quantity and quality of a society's social interactions. Evidence shows that social cohesion is vital for prosperity and to ensure sustainability of economic development. Hence it can be rightly opined that Social capital is not just the sum of the institutions which underpin a society, it is the glue that holds them together. Social capital originates from social networks and the reciprocity, trustworthiness, and civic engagement created by these networks. Community interventions and community psychology researchers have used similar concepts of community capacity, sense of community, and community control to explore different mechanisms to facilitate health status improvements.

Five key dimensions of social capital are also being enlisted by World Bank to enhance its operational feasibility.

i. Groups and networks that protect and promote personal relationships which improve welfare;

ii. Trust and solidarity elements of interpersonal behaviour which fosters cohesion and robust collective action;

iii. Cooperation and Collective action towards resolving communal issues;

iv. Cohesion and inclusion mitigates the risk of conflict and promotes equitable access to benefits of development by enhancing participation of the marginalized; and

v. Information and communication breaks down negative social capital and also enables positive social capital by improving access to information.

Thus this new approach fits into the realm of New Institutional Economics. Olson effects and Putnam effects are two prominent arenas through which the literature of social capital has flourished. Due to its interdisciplinary nature, uniform definition of social capital is not possible, rather contextually driven

definitions are derived (Grootaert, Bastelaer 2002). Still the concept is befitting to analyze the impact of social sector policy mechanisms and the extent of ensuring subjective well-being.

Context of the Study

Recently planning decisions and policies also started looking into the dimensions of social capital. The access to utility reform can be assessed by analyzing the structural component of social capital which put strategy to action. The very presence of social capital itself contributes to the success of developmental projects. Thus a shift in the paradigm can be realized with the generation of social capital. The utility reform explored through this project is confined to the health care sector with special reference to National Rural Health Mission (NRHM) policy. The study tries to identify links between the communities and national health systems under this flagship programme. It also identifies a set of key components comprising this community health sub-system that serves as the interface between community realities and health system elements, where health services, health workers, community dynamics and actors, and the cultural norms and practices interact and promote improved health outcomes.

Relevance of the Study

Research studies have observed that there exist associations between high levels of community social capital and reduced mortality rates and better self-rated health. These findings point that social capital plays a role in mediating the relationship between income inequality and health. One mechanism by which social capital may influence health, particularly in low-income communities, is its influence on people's use of health care services. Residents of a community or locality with high social capital may provide one another with greater instrumental and psychosocial support than do residents of a community or locality with low social capital, or the community's level of interconnectedness and trust may reduce barriers to care. Planners and Policy makers should give due attention to social capital as public projects may harm human interactions,

networks and trust which can undermine important outcomes such as health, safety nets and development. Bringing community concerns to policy agenda is the need of the hour. Hence it demands to measure the extent to which public policy initiatives ensure subjective well-being of the target group.

Objectives

The specific objectives framed for this study are as follows:

i. Identify constraints to economic and community integration of low Socio-Economic Status adults.

ii. Analyze the distributional impact of policy reforms on the well-being or welfare of different stakeholder groups, with particular focus on the poor and vulnerable.

iii. Assess the strategic dimensions of social capital on fostering subjective well-being.

Data and Methodology

Guidelines provided in the Social Capital Assessment Tool (SOCAT) was utilized for constructing dataset to analyze the structural social capital components in delivering health care services and promoting subjective well-being. Unit of analysis includes community level, household level and institutional level segments. Both qualitative and quantitative tools were used for the study. Study area is confined to selected rural regions of Trivandrum district on the basis of secondary data pertaining to health care mechanism. The study examines the relative contributions of social capital and structural factors such as geographical and financial conditions, which exert important effects on health care access. The respondents considered in the study pertain to those from rural areas and the financial conditions are addressed through income levels, educational attainments and job profiles of the selected respondents.

Social capital was assessed among the respondents with regard to health care service provision under National Rural Health mission. Simple random sampling was relied to select the sample. The study used logistic regression for identifying the determinants of social capital dimensions and socio-cultural

factors on health care outcomes. The choice of the model depends on the characteristics of explanatory variables and response variable. Since the response variable is categorical data and the explanatory variables are categorical and/ or continuous data, the logistic regression/ model is an effective one. The logistic model formula computes the probability of the selected response as a function of the values of the predictor variables. Continuous scale selected for the study was calculated on the basis of ordinal scale obtained from the sample divided by maximum scale and then converted into continuous scale. The socio-cultural variables used for the study are education, income, age and occupation. Logistic regression also allows one to measure the effect of independent variables upon the probability of the dependent variables being true or not. The equation can be depicted as follows.

$z = b0 + b1X1 + b2X2 + ... + bkXk$

where z - log odds of the dependent variable, b0 – constant, k - Independent (X) variables, some of which may be interaction terms. "z" is the logit, also called the log odds.

"b" terms are the logistic regression coefficients, also called parameter estimates.

Conceptual Overview

Social capital embodies a wide range of concepts that help in explaining the linkages between economic, political, social, historical and cultural factors, making it especially appealing, but difficult to define the object of research. In the words of Portes (1998) "…social capital comes to be applied to so many events and in so many different contexts as to lose any distinct meaning." It stands for a stock of produced or natural factors of production that can be expected to yield productive services for sometime. It includes patterns of behaviour like trust, willingness and capacity to co-operate and co-ordinate, and the habit of contributing to a common effort in the concept of social capital.

The first observer who invoked the fundamental idea of the concept of social capital was Alexis de Tocqueville (1945), a

political theorist who gave an insight into the ideas that are of fundamental significance to understanding the conditions of modern democratic order. Alfred Marshall (1890) and John Hicks (1942) had used the term 'social capital' to distinguish between temporary and permanent stocks of physical capital. Adam Smith argued the effect of moral principles for the efficient functioning of the market and its serious limitation (Jerry Evensky, 1993).

The role of norms and institutions in explaining economic life has suppressed till the 19th century, but utilitarian economists such as Mill, Bentham and Ricardo gave it a prominent role in economic sphere. It has been argued that from the time of Marx and Engels itself, the notion of social capital was in use. Thus the origin of the concept of social capital dates back to the 18th century.

Jane Jacobs (1961) was the first to provide evidence of the importance of the concept of social capital to well functioning society. In the study, "The Uses of City Neighbourhoods" examine the patterns of reciprocity and networks of urban life in three levels: neighbourhood, district, and a metropolitan city. It reveals that associations at a local level affect the performance of democracy at a higher level. The analysis unfolds the coming together of people of a neighbourhood for frequent interactions and how those interactions build trust. Multiple neighbourhoods are then connected in a network and the social capital thus built is used to check and influence those in power. Thus the understanding of social capital can be divided into two broader categories: the minimalist and the expansionist views. The minimalist view of social capital emphasizes the structure and the characteristics of the networks among individuals and their impact on social, political, and economic interactions. The expansionists understand social capital in a broader context as factors that help individuals solve the problems of collective action. Social networks are also taken into consideration.

Social Capital began as an unimportant concept worthy of decorative descriptions, yet in the later ages, it slowly and steadily started receiving much limelight. The concepts

developed by early Social Scientists (Bourdieu, Coleman, Putman etc) were in sense loose sketches of the real term. But today, it is a fact beyond any iota of doubt that social cohesion is critical for social and economic prosperity and to be sustainable. Social Capital comprises of norms, trust, networks, relationships and institutions which quantifies the quantity and quality of social engagements to achieve well-being through the enhancement of productivity. This review tries to highlight some of the important terminologies linked to the development of social capital into an entity for well being.

To Bourdieu, inclusion in social networks is not something inherently possessed. Those with more resources to invest are more easily invited into powerful networks. Bourdieu highlights the role that power and inequality have on social capital and claims that dominant societal groups have more power to decide what networks are valuable and to include or exclude people from these networks.

Coleman views social capital as a resource for action and identifies three forms: (1) obligations, expectations, and trustworthiness; (2) information channels; and (3) norms and effective sanctions. Portes (1998) characterised social capital as an individual attribute derived from an individual's own social network. The difficulty with this approach is that it sounds the same as 'social support'.

Vertical and Horizontal Integration

The basic premise is that through interaction, people builds communities, shared values and virtues, behavioral and social norms and a social fabric which constitute essential ingredients for effective functioning of an economy. Studies especially undertaken in American society highlighted that the main causality of contemporary society is the transformation that is happening in contemporary society and the slow demise of the popular traditional community life. As a result of economic advancement, many of the families had two-career couples actively involved in career advancement (Paul Pettit, 2008 p 81). As a result of this they ought to spend more time and energy on their assigned job and also on commuting between

home and office. As a result of this, they scantly get sufficient time for interlinking with the community. But the only silver line in the era of information technology is the internet. Social scientists are of the view that internet is used as a potent tool for social capital building, longer they use this tool, the more intense is their community attachment and involvement (Barry Wellman & Caroline Haythornthwaite, 2002).

Political and Social Environment

Social Capital is regarded as both a 'private good' and a 'public good' because some of the benefits go to bystanders while only a part of it is attained to the person. Likewise Rotary and Lions Club synergizes local energies for scholarships while it also strengthens relationship based on the principle of reciprocity which will ensure efficiency. The dark side of social capital can also be visualized where one can witness excessively strong ties within groups which even jeopardizes collective benefits through the adoption of aggressive postures against non-members (Gupta, Gunnar Lind Haase Svendsen & Prasenjit Maiti, 2008).

Trust and Association

While reviewing various definitions on social capital, the Social Scientists is of the view that the important ingredients in social capital are trust and association. Former refers to passive emotional sentiments while the latter refers to responses that lead to familiarity. (Larissa Larsen et al, 2004 p 67) Social Capital can be characterised into three – bonding, bridging, and linking. Bonding is more beneficial as it brings more like minded people together but it excludes people from different categories whereas bridging brings together a heterogeneous group. Linking social capital bridges the gap between people of different social, political, economic and professional hierarchy. As enterprise and human capital are in a free-flowing mode in a globalized world, bridging social capital is the most desirable one (Noya Antonella, Clarence Emma & Craig Gary, 2009 p.91)

Qualitative Process

Social Scientists questioned the ways and means by which certain groups or categories of people succeeded in accumulating various types of social capital and used it to achieve privileges (Dieter Tthomä, Christoph Henning & Hans Bernhard Schmid, 2014 p 156). All forms of social capital in one way of the other assist in ensuring economic transactions both within communities and at the extreme between trading partners over distance (Noya Antonella, Clarence Emma & Craig Gary, 2009 p.91). Social capital exerts its qualitative influence right from the early days of childhood. It is even opined that Social Capital keeps bad things from happening to good kids (Robert D Putnam, 2000 p 296). Sufficient studies had proved that social networks and reciprocity assist in moulding the character of the child. Empirical examination of ethnic conflicts in Indian cities (Ashutosh Varshney, 2002) conveyed that the difference as to why some Indian cities are successful in maintaining peace can be attributed to the presence of excessive bridging social capital (Ashutosh Varshney, 2003, p 68). Some of the researchers had gone to the extent of addressing it as tools when deployed can enable actors comprising of both individuals and groups to pursue their goals effectively (John Field, 2003 p.54). The highlight of this century is the transitions to a knowledge society and a knowledge-based-economy where knowledge, a qualitative component is growing in importance than other factors of production (Tjip de Jong, 2010 p12).

Quantification Process

Despite rapid development of mathematical and user-friendly computer programs for calculation, yet this method suffers from limitations in terms of analysis and heuristic value (Maytham Safar & Khaled A Mahid, 2012 p.198). It is only through the enhancement and substantiation of qualitative insights of phenomena, and then only quantitative analysis can be undertaken effectively. Various studies had highlighted that it is difficult to quantify social capital as it is difficult to determine the real bearer of social capital. In order to measure levels of

social capital, we need to have fine grained conceptual components like associability, trust and attention. Together they allow us to assess the complex set of attitudes, behavioural dispositions and structural patterns that together make up the theoretical variable of social capital (Robert D Putnam, 2002 p 190).

Subjective Well Being

Durkheim's study of the causes of suicide has shown that social integration can enhance population well-being. Epidemiologic investigations of social ties have found that individuals who lack social connections have 2 to 3 times the risk of dying from all causes compared with well-connected individuals. Kawachi et al. (1997) used US data aggregated at the state level and reported strong cross- sectional correlations between indicators of social capital and mortality rates. Each indicator of social capital was strikingly correlated with lower mortality rates, even after adjustment for state median income and poverty rates.

Though conceptualised as an individual entity, it has immense potential in health promotion activities as it assist in enhancing knowledge and ensures network interventions based on the needs of the target group (Malin Eriksson, 2016). Researchers are of the view that social capital will finally act as the real stimulant and will guide us in achieving the desired objectives. There are only a few empirical studies about how social capital leads to achieving sustainable development. Examples related to antipollution movements in Japan were highlighted were the urban-middle class people organised for their well-being (Emiko Kusakabe, 2016 p 1043). The world also witnessed such a type of movement in the Western World as well which urged for democratisation of civil society.

Earlier Social Scientists (Putnam 1993) discussed and deliberated about social capital without including public health. It is only a recent phenomenon where there is an explosion of interest in public health. Recent studies (Kawachi et.al, 2008) had conveyed that the key to improving health lies with the local communities' ability to assess resources beyond their social milieu i.e., through access to bridging social capital. Studies also

urged that one must be careful in inferring the results of analysis undertaken with respect to health care outcomes. When research studies infer that there is no relation between social capital and health it can be attributed to poor analysis and not to theoretical invalidation (Ichiro Kawachi, Soshi Takao & Subramanian, 2013 p117).

Researchers are of the view that societies and all social groups have social capital. But, for the well-being of the society, a transition has to occur from primary social groups (bonding) to networks of secondary associations (bridging) (Deepa Narayan, 2001) while certain others (Growiec and Growiec, 2007) was of the view that unambiguously negative impact of bonding social capital on earnings.

Some of the studies are of the view that individuals living in neighbourhoods with the lowest levels of linking social capital exhibited a significantly higher risk of poor health than individuals living in neighbourhoods with the highest levels of linking social capital (Kristina Sundquist and Min Yang, 2006). Many researchers (d'Hombres et al, 2007 Scheffler and Brown, 2008) believed that social capital alone cannot make a positive impact positive effect but it needs institutional support and its desired effects depends on the quality of the political institutions and civil liberties of the nation. They also urged that if the political institutions are responding then various policy initiatives should be undertaken like laws and regulations, funding and/or tax subsidies etc. Researchers also advocated that in order to enjoy the benefits, a person should reside in a place for a long time as they get sufficient time to integrate into the economy (Yamamura, 2009a and 2009b). They also advocated that social capital enriches the lives of weaker sex for unemployed groups but among the employed the difference is very minimal.

The most important criticism rose against public health literature and social capital is that it is biased towards the salutary impacts and downplays its damaging effects. This can be attributed to the fact that the earlier definition of social capital conveys the

facilitative role of it and not about its consequences like excessive demands, excessive expectations and exclusions.

Literary Bias towards Positivism

Through a careful analysis of literature, one can clearly observe that the concept is positively biased and is even upgraded as a 'Public Good'. Like any other public good, social capital can also carry negative value whereby they can be called as 'public bad' (Kay and Johnston, 2006 p 33). At times social capital can assume negative forms and become dysfunction. Some of the suggested generic forms of dysfunction are through exclusion of outsiders, creation of negative externalities for the host community and unbearable claims of insiders.

Epidemiologists have applied the concept of social capital and its multidimensional aspects to public health and have worked to illuminate cause-and effect relationships. At the same time, community interventions and community psychology researchers have used similar concepts of community capacity, sense of community, and community control to explore how to facilitate health status improvements.

The concept of social capital lies at the core of the understanding of the role of social features (such as social cohesion, integration and collective problem solving) in the pursuit of desired levels of personal and collective well-being. In this context, social capital provides a framework to explore collective action, particularly why some communities succeed in reaching shared goals and in finding solutions to collective problems that affect the well-being of their members, while others can not find the necessary collective effort to achieve those common goals. It has been argued that social capital has a clear role in the design, development and implementation of public policy, researchers needs to address the issues of how social capital is generated, how it is distributed and how it functions at different levels and in different circumstances. In this regard, Edwards and Foley (1998) point out that most research in social capital has ignored the role of the political, economic, social and cultural contexts in the variations on the characteristics of social capital.

The interest in understanding human action in its social context contributing to economic development has driven to study how well-being and quality of life can be improved from a "society-individual relationship" approach. This attitudinal change in the approaches of the individual and society contributes positively to the social environment. There are interactive and dynamic processes of building society and social beings. Low social capital has, for instance, been suggested to follow feelings of marginalization and relative deprivation among disadvantaged groups in unequal societies (Wilkinson, 1996; Wilkinson and Pickett, 2009). People who experience long-term disadvantage may turn away from social and civic life, develop a distrustful attitude towards their fellow citizens, and be less willing to share social resources. Hence, reductions in social capital among individuals or in societies could be decisive for whether the psychological experience of inequality ultimately leads to health inequalities. Social capital in the form of social resources embedded in social networks might also provide individuals with material resources available in social networks.

Based on the above literature review though it is over positively biased, yet due to its multi-beneficial nature it is regarded as a potent tool for economic prosperity giving due importance to sustainability. Hence this study tries to analyse the extent to which social capital is generated through the flagship programme of Government of India – The National Rural Health Mission (NRHM). Forthcoming section provides an emphasis on social networks and its implications for health promotion strengthening the view that it is an essential structural element of social capital.

Social Capital Dimensions: Implications for Health Promotion

Relationship between social capital and health has been documented since 1901, when Emile Durkheim identified a relationship between suicide rates and the level of social integration. Since then research has continued to demonstrate that higher social capital and social cohesion are associated with improved health conditions. Recent research shows that the

lower the trust among citizens, the higher the average mortality rate (Baum 1997, Kawachi et al. 2004).

Different theorists has viewed social capital through varied constructs of disciplines, but the common thread connecting them is regarding positive social networks of different types, sizes and shapes bringing about social, economic and health development among different communities and hierarchical groups. Literature provides evidence that individual social capital can be an important health promotion strategy. The different levels of social capital can be characterized as bonding, bridging and linking social capital. Social capital is often viewed as both an individual and a collective feature, although the explicit choice of level of analysis requires different considerations and methods.

Social Network Approaches

These approaches consider social capital as an individual asset. By developing social networks, individual can attain certain benefits and resources. This implies resources are inherent not in individuals themselves, but in the structure of their social networks. Individuals who possess more resources to invest in are attracted to networks rapidly than who lack resources. Thus power and inequality exerts a major role on social capital and hence dominant societal groups have more power to decide what networks are valuable and to include or exclude people from these networks. Social network approaches exhibits an exclusionary mode of operation in the society. As Portes rightly observed, characteristics of networks like motivations to make different resources available, can be considered as the sources of social capital. At the same time the actual resources provided like information, support and opportunities can be defined as the effects of social capital.

Social Cohesion Approaches

Social cohesion approaches views social capital as a public good possessing non-exclusion characteristics and residing in communities. Living in a high social capital area can be beneficial even for individuals with poor social networks due to

'spillover' effects. In collective communities horizontal relations of reciprocity are common and interpersonal and generalized trust are high. But in the modern knowledge society where internet activities replaces civil association activities, instead of being public good, social capital has become a club good for diverse subgroups within a society. It is due to social fragmentation made by internet activities and consequent changes happened in social capital.

The utility of using the concept of social capital lies in the embeddedness of the individual to a social structure. The concept of social capital can also be mobilized for explaining the relationship between inequality and health. A different type of resource that is transmitted through social connections is the diffusion of information, which is highly essential for the efficient execution of health care services. The structure of a social network that facilitates the exchange of mutual assistance may be different from the structure of a network that facilitates the spread of information. Whereas enforceable trust is likely to be strengthened by network transitivity, the same may not apply to the diffusion of information. In the case of information flow, it may be more important that your friends do not know each other (since they are likely to share the same information) and for there to be more independent paths via which information can reach any given individual. Social capital characterized as the asset of whole community is contributory to the community development approach within health promotion. It provides a framework for the environment to which a policy is implemented and to achieve its desired goals.

Avenues for Intellectual Exercise

Though social capital had received acclaim and disdain in the field of Health care Outcomes and Social Well Being, we are of the view that it has got more positives than negatives. To have a clearer insight into effects of social capital on health care outcomes, further robust research is needed in analyzing the qualitative and quantitative effects of development and maintenance of social capital. Research should demonstrate the causation and direction of social capital and health care

outcomes. Research methodologies adopted by researchers should be vigorous and should provide scope for comparative analysis. In the long run, we need to develop a structural framework, to develop a complete arrangement of social capital indicators for developing, theories and for the ultimate advancement of this concept.

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6
Influence of Lifestyle on Reproductive Morbidity and Pregnancy Outcome among Women in the Context of Palakkad District, Kerala

Manju Varghese

Women health is crucial not only to them but also to each and every member of family as well as for the health of the child they bear in their life time. Women's lifestyle preferences prior to and through pregnancy have considerable linkage to the health of both the mother and her off spring (Mc Carthyet al., 2013). The physical activity, food consumption pattern, emotional and mental well being of the mother in the early stages of pregnancy is closely related with birth weight and head circumferences of fetus. Poor neonatal outcomes will influence profoundly on children's later physical and cognitive development (Lin et al., 2016).

The collaborative nexus of maternal, socio cultural and environmental contexts results in major negative pregnancy outcomes including neonatal mortality, low birth weight, stillbirths and malformations of the baby and even maternal deaths(Wardlaw & Kessel, 2002).

Despite substantial achievements in maternal and child health over the past two decades, Kerala now faces new challenges, in the form of persistence of gynecological morbidity and pregnancy complications along with a rapid rise in overweight and obesity in both children and mothers. In Kerala, around 40per cent of women are suffering from at least one gynecology

related morbidity cases (Navaneetham &Thankappan, 1999). Kerala in spite of marvelous achievements in reduction in infant mortality rate ,the high prevalence of low birth weight stands out as an indicator of morbidity factor demanding correction (Kutty, 2004). NFHS4 data also illustrates that the pregnancy related complications and illness are higher among Kerala women. During pregnancy women of Kerala reported excessive fatigue (71 per cent), anaemia (45 per cent), and swelling of the legs, body, or face (36 per cent). Six per cent reported vaginal bleeding, 2 per cent each reported blurred vision, night blindness, and convulsions not from fever which portraits poor maternal health condition of women (NFHS4 2017).

Rapid change in the life style of women involving, deficiency in regular physical activity, and consumption of diets rich in highly saturated fats, cultural values and norms; optimistic bias and other misconceptions related to risk; and low expectations regarding one's ability to make lifestyle changes in order to influence health and disease outcomes (Daivadanam et al.,2013)has inverse effect in overall health reproductive morbidity and harmfully affect pregnancy outcomes.

Impact of Reproductive Morbidity in Pregnancy Outcome in Kerala

Adverse pregnancy outcomes are those pregnancy outcomes other than normal live birth which majorly includes preterm birth, stillbirth and low birth weight which are the major cause of neonatal morbidity, mortality and long term physical and psychological problems (Chaibva et al., 2015).One of the main reason for these adverse pregnancy outcome is life style factors. Nutrition paradox suggested by Benjamin Caballero states the condition of obese mother having an under nourished child(Caballero, 2005). The Indian State of Kerala illustrates this nutrition paradox with static prevalence of childhood under

nutrition and steady increase in obesity in women in the reproductive age group. The nutritional status of 25per cent of children below the age of three years is stunted and is remaining static over the last 15 years, where as the overweight in urban women in Kerala has reached 34per cent in 2006. Percentage of babies born with low birth weight (< 2.5kg) has increased from 17.2per cent (1992-93) to 24.7per cent (2005-6) during the same period. (Sivasankaran et al., 2014)

Despite good maternal and child health care services, Kerala reported 16.1 per cent low birth weight babies and 26.5 per cent childhood stunting below the age of three years in 2009-2010 (NFHS32009-2010). Kerala also has the highest prevalence of overweight and obese women in the reproductive age group in India. In a community based study, all the 2.9 per cent people detected with diabetes in the age group of 15-24 year were women. Normal weight children in Kerala were reported to have the highest mean systolic and diastolic blood pressure across world (Sebastian, et al 2016).The existence of multiple morbidity rate is about 47.1per cent among the adults aged 18-64 and dysglycaemia rate was 54.5per cent and these factors are significant contributors to cardiovascular disease mortality (Sarma et al., 2019).

The restriction of outdoor physical activity in girls and women which is an outcome of life style followed decreases endogenous vitamin D synthesis and imparts a low body skeletal muscle mass and high fat body composition. This has resulted in increasing metabolic risk factors in women in the reproductive age group through increasing blood pressure, dysglycemia and declining vitamin D levels. (Ramesh, 2008). Findings from a qualitative survey in Kerala suggest culture and customs extort unhealthy lifestyle; take hold on day to day diet, physical activity and medications (Wilson, 2010). Necessary interventions are essential to reduce the burden of NCDs among

people which is expected to increase substantially in future with the process of aging and continuous changes in life style. The hike in medical expenditure and long duration nature of NCDs creates high financial burden among people (Harikrishnan et al., 2018).

The presence of disease conditions like maternal hyper cholesterolemia, obesity, and diabetics during gestation period significantly influence fetal health and existence of such conditions increase risk of offspring being affected by cardio-vascular diseases and developing NCD risk factors in later life (Palinski et al., 2009). In Kerala prevalence of chronic patho-genic conditions are very high among women which is mani-festing in to reproductive morbidities resulting in pregnancy complications and development of NCD risk factors among fetus and this can be reason for high rates of chronic morbidity among people of Kerala.

Pregnancy related anxiety is found high among women in Kerala (Gellerl et al., 2018) and research prove than pregnancy related anxieties can result in adverse labour outcomes (Bayrampour et al., 2013) Reproductive morbidity adversely affects obstetric outcome of women jeopardizing both maternal and fetal health and well-being. As obstetric transition is under sway in India and Kerala increasing burden of reproductive morbidity due to onset on NCDs in very early age due to change in life styles and health behavior. The focus on direct causes of obstetric complications and interventions provides only a short term remedy for the problem. More holistic approaches concentrating on the core of the problem involving community oriented interventions help to improve maternal health fetal health and to develop a healthy society.

In spite of spectacular achievements in physical quality of life of women, women reproductive health status is not so impressive

in Kerala. One of the main factors attributable is changes in life style and life behavior. The reproductive morbidity has great implications in pregnancy outcomes. This impact of reproductive morbidity is much above intrauterine life, extending into infancy, childhood and even adulthood with severe health repercussions. Prevention rather than treatment may offer the best hope of breaking the vicious cycle of reproductive morbidity on child health.

Significance of the Study

Mothers play a fundamental role in the health as well as the quality of life of their children. It is essential to give focus to maternal health during pregnancy. Improvement in maternal health is a key objective of millennium development goals as it is a key to saving the lives of more than half a million women who die as a result of complications from pregnancy and childbirth each year (WHO 2015).Kerala though accounted for its exemplary performance in the field of maternal and child health care, the picture is distorted by the incidence of high morbidity rates (chronic and reproductive morbidity) among female. The adverse reflections of high morbidity rates can be seen in the form of adverse pregnancy outcomes which are manifested in the form of low birth weight babies and still birth. With the spread of urbanization, immense drifts in life style are noticed which acts as a contributory factor for high female morbidity. Maternal health is an important factor responsible cognitive and physical development of the baby. Women with healthy lifestyles in pregnancy had better peri natal outcomes than unhealthy women (Koletzko, B et al. 2018). The identification of core factors resulting in morbidity and healthy behavior modification among expected mother can decrease the burden of morbidity of themselves and children. One of the main challenges facing Kerala in improving maternal health and

quality of life is to identify the modifiable risk factors associated with pregnancy which will improve the pregnancy outcome.

Kerala health care achievements have reached a plateau from were further strides of development is not possible. One of the main problems regarding women health is increasing rates of chronic morbidity, reproductive morbidity and pregnancy complications. Though measures are taken in the form of food supplements and medicines to solve the issue it is not a permanent solution to the problem. As earlier studies pointed out maternal health style has a great influence in determining reproductive morbidity and pregnancy outcome in short term and over all morbidity in long term. So a study pertaining to influence of life style factors on maternal morbidity has to be studies in detail to sketch out the factors which can be changed to improve the reproductive health an deduce the burden of reproductive morbidity foe women and NCDs on society.

Objectives of the Study

1. To find out the prevalence of reproductive morbidity rates among the respondents
2. To find the influence of life style factors on reproductive morbidity ,pregnancy outcome and nature of delivery

Methodology

Primary data is used for the purpose of the study. Kerala is a state well acclaimed for balanced regional development especially in social sector (Chakraborty, 2009). Almost all districts of Kerala have high coverage of maternal and child care and it is higher than national average (NSSO 2015). In all districts of Kerala chronic morbidity is the leading cause of diseases and reproductive morbidity among women is a prominent health issue (DLHS 4, 2012-13) So any district of Kerala will be a good representative of Kerala state. The study

is planned to carry out in rural and urban areas of Palakkad district of Kerala. Reason for rural urban division is that social economic environmental and health atmosphere in rural urban zones are different which has a great influence in shaping maternal health style. The sample population comprises of women of age group 15-49 (reproductive age group) who has given birth to a child for last two years. Total number of live births in Palakkad district is 37589 and birth rate is 12.87 (Annual Vital Statistics Report 2018). Taking the confidence level as 95per centage and margin of error as 5per cent and population proportion as 13per cent as birth rate is 12.8per cent, given the population size (37589) the sample size is determined as 200 women (100 from rural area and100 from urban area).

The study is conducted among women and purpose of study was to find out the relationship between life style and pregnancy outcome. The women who has given birth to alive child in past 12 months qualifies being part of the sample and such 200 women was identified using random sampling technique and data was collected from them, To felicitate rural urban comparison 100 women who had pregnancy episodes in last 12 months was selected from rural areas and 100 women from urban areas. Primary data was collected utilizing a structured questionnaire.

Definition of Concepts Used

Reproductive Morbidity:

Reproductive morbidity refers to diseases of the reproductive system that may or may not necessarily be a consequence of reproduction. The WHO (1992) has defined reproductive morbidity as consisting of three types of morbidity: obstetric, that is morbidity in a woman who has been pregnant (regardless of the site or duration of the pregnancy) from any cause related to or aggravated by the pregnancy or its management, but not

from accidental or incidental causes. Gynecologic morbidity include dysfunctions and diseases of the reproductive system which is not related to pregnancy, abortion, or childbirth, but may be related to sexual behavior and third one contraceptive morbidity includes conditions which result from efforts to limit fertility using traditional or modern methods. Globally, especially in underdeveloped countries women die because of maternal health issues which can be prevented if proper care is given to them in correct time. Many women were suffering from multiple reproductive morbidity conditions (WHO, 2016).

From various literature the different types of gynaecological morbidity has been identified and most prevalent ones were listed out and responses of the respondents are recorded in the questionnaire with yes or no Question for yes (1) was recorded if symptoms are present no (0) for the absence of diseases. The major gynaecological morbidities listed out were reproductive-tract infection, Dysmenorrhoe, Menstrual problems ,Premenstrual syndrome, Prolapse, Abnormal vaginal discharge, Local lesions and infestations Reproductive tract infections (RTIs),: sexually transmitted diseases (STDs), endogenous infections, which is the after effect of over growth of micro organisms usually seen in the genital tract of female. Dysmenorrhoea is the scientific terminology for painful menstrual periods which are caused by uterine contractions. By menstruation problems we mean heavy periods, scanty periods, absent periods and painful periods. By pre menstruation syndrome we mean range of emotional and physical experiences women undergoing two weeks before period begins. It includes problems like bloating; irritability headaches backache acne etc. A uterine prolapsed is a condition where the internal supports of the uterus become weak over time. Abnormal vaginal discharge means change in smell, colour, or discharge texture due to imbalances in the presence of

amount of bacteria. The term local lesion means infections of skin in the genital areas which is localized with only limited systemic spread of the infecting organism. These are the common gynaecological morbidities noticed in study area and all others problems other than mentioned above are classified as other gynaecological morbidities.

The existences of obstetric morbidity among the respondents have been examined using the list of common maternal morbidities which has been involved from the review of various literatures. (Zurayk et al (1993) (Chaurasia, 2006).. The main obstetric morbidity which has been discussed here as cardiovascular problems such as heart disease and blood vessel problems, Gestational Diabetes, High blood pressure, Infections especially from caesarean section, Blood clots, Bleeding (sometimes called haemorrhage), Anaemia (low iron in the blood), Nausea and vomiting (sometimes called morning sickness) and hyper emesis gravid arum (severe morning sickness), eclampsia, sepsis/blood infection, hysterectomy, needs breathing assistance such as a ventilator or needs a blood transfusion, Pre term birth, Placenta abruption, intra-uterine foetal death, infections, Birth defects, Ectopic pregnancy, illness in the newborn period (Kumar et al., 2021). .A total of 19 obstetric problems has been identified and asked respondent to respond about the same by asking Yes or No questions(0) was given for absence of disease and 1 for presence of disease and the existence of conditions was summed up so got a maximum of 19 and a minimum of 0

Life Style Factors:

Life style or way of life unswervingly affects a person's health and it is a trait which can be altered and controlled. Lifestyle comprises of attitudes, habits and behavior of people which they develop during their life shaped by national, social, economic,

political beliefs, cultural and religious contexts .It includes day to day activities and behavior of individuals in every aspect.Life style is a key influential factor of mental and physical health of an individual (Farhud 2015).

A pregnancy can be successful only if healthy weight and healthy lifestyle behaviors of the mother is ensured . Pregnancy risk factors including poor nutrition, age gap between children, mother's age, and inadequate prenatal care, lifestyle behaviors like smoking, alcohol consumption, overweight, obesity and poverty endanger the life of mother and baby (Isiugo-Abanihe & Oke, 2011).

In this study Life style of the mother is studied using using self rated health (SRH) and SRH has been widely used in the field of public health (Wu, et al. 2013).There is a close association between SRH and life style behavior. SRH, as an measure of health and wellbeing has been positively associated intake of healthy foods like fruits nuts and vegetables and negatively with the consumption of processed food and high calorie and fat content diet (Zarini, et al,. 2014).In thus study we graded SRH in four scales excellent, good , satisfactory worse. Many studies prove that they is a close association between this subjective measurement of health status and objective measure of health status like the prevalence of diseases, and extent of disability.(Manderbacka et al.,1990). Worsening of already existing chronic health conditions among people is because of negligence to medical recommendations especially about changing the life style by following a healthy diet and undertaking of physical activity.. Here we try to correlate between SRH and extent of disability which is again rated on a four point scale according to the degree of activeness 1 fully active 2 confined to house hold activities 3 confined to basic activities 4 dependent on others. Another important criteria for understanding the general health status is existence of number of

chronic health conditions. among the respondents. The physical or mental diseases which lasts for more than one year and causes functional restrictions is considered as chronic disease (Basu et al., 2016). We try to count the number of chronic conditions among the respondents and correlated with SRH and degree of activeness. To get a clear understanding of the disability status disability assessment schedule widely known as WHO Disability Assessment Schedule 2.0 (WHODAS 2.0) has been used. The WHODAS2 includes six domains domain1 is cognition – understanding & communicating; this domain includes six questions, domain 2 is Mobility– moving & getting around, it consists of 5question domain 3 is Self-care– hygiene, dressing, eating & staying alone this domain includes 4 questions , domain 4 is Getting along– interacting with other people and this domain include five questions domain 5 pertains to Life activities– domestic responsibilities, leisure, work & school consists of 8 questions and domain 6 pertains to Participation– joining in community activities consisting of 8 questions. Total of 36 questions are included in the schedule. The Variables are ranked in an ordinal scale 0 for none , 1 for mild, 2 for moderate 3 for severe and 4 for extreme or cannot do Garin et al.2010). The scores are summed up for each domain and divided by the number of questions in each domain. Then the average score of all six domains are added together and aggregate score value ranges from 0 to4

Another important lifestyle factor is mental health status and The mental and physical health during the prenatal period, which contains both antenatal and postnatal phases, is very crucial for both for mother and child. Good maternal health from the time of conception positively influences mental and physical health of the baby. Now it is well known , that several psychiatric disorders are common during pregnancy, with depression being the most common and it can a lifelong impact

on mother and baby (Satyanarayana, et al., 2011)Here we are attempted to calculate the well being Index of the mother using WHO 5 well being Index. The 5-item World Health Organization Well-Being Index (WHO-5) is the widely accepted and established questionnaires assessing subjective psychological well-being. The WHO-5 consists of five positively phrased questions. the phrases in the WHO-5 items are: (1) 'I have felt cheerful and in good spirits', (2) 'I have felt calm and relaxed', (3) 'I have felt active and vigorous', (4) 'I woke up feeling fresh and rested' and (5) 'My daily life has been filled with things that interest me'. The respondent is asked to rate how well each of the 5 statements applies to him and ask him to give the value ranging form 0to 5. For these statements. The scaling vague of the statement areas follows 0 all the time, 1 for most of the time 2 for more than half of the time,3 for less than half of the time4 for some of the time and 5 no time. The raw score therefore theoretically ranges from 0 (maximum well-being) to 25 (no well being) (Bech, 1999).Well being Index of the respondents has been studies in relation with depression felt by the respondents and seeking of expert for assistance.

Another Life style factor taken in to consideration is health conscious behavior. The health conscious behavior of a person largely influence the general health status of the same. Here we try to find out the extent of health consciousness among the respondents using five variables time spend for exercise, quantity of water intake, daily hours of sleep, Diet consciousness and regularity of food . One of the most vital component for healthy life styles is having an active life. Exercise, defined as physical activity or body movements performed to improve or achieve one or more components of physical fitness, and to maintain optimal health for a person. Many studies prove that women who keep exercise in their daily routine has less chance of developing gestational diabetes

mellitus, and caesarean birth (Dunney, C., & Murphy, 2015).)Drinking at least 8 glasses of water in a day (Wolf, et al.2010), having ample sleep(7-8 hours for adults) (Lambrini, et al.2018)maintain regularity in consumption of food and have a balanced diet (Pitale, 2018) helped to achieve good health status which in turn will support good pregnancy period and outcomes

Pregnancy Outcomes:

Outcome of Pregnancy has been divided into two. Full term pregnancy and Preterm Pregnancy. Preterm is defined as babies born alive before 37 weeks of pregnancy are completed and babies born after 37 weeks is considered as full term births (Brown, et al. 2014) However, while most of previous studies focused on a single factor and its impact on adverse pregnancy outcome a comprehensive profile simultaneously considering the effects of multiple lifestyle contributors like the impact of maternal lifestyle, including physical activity, dietary behaviors, and sleep problems and depression in early pregnancy on neonatal outcome is attempted in the study .Many adverse pregnancy outcomes is tailored by preconception environment (time span of 14 weeks before to up to 10 weeks after conception) which is to a large extent influenced by maternal pre-existing medical conditions and modifiable life styles factors of mother like Body Mass Index, Emotional and mental health of the mother (Oostingh, et al., 2019).

Nature of Delivery:

Nature of birth of the child has been divided in to normal delivery and Caesarean Delivery. A normal delivery means a vaginal delivery and a a C-section delivery causes a surgical cut in the abdomen of the mother , from which a baby is manually extracted (Özcan, Ş. & Aslan, 2015). One of the disturbing trend noticed is that cesarean section delivery is very high in

Kerala compared to India in public sector. Many studies attributes medical and social reasons for increase in the rate of cesarean section deliveries. The history of previous cesarean deliveries, a request from the part of the mother , lifestyle factors like obesity and related diseases high socio economic status , dominance of private hospitals ,preference for male child, full insurance coverage of pregnancy and deliveries s after infertility treatment are pointed out as reasons of increased cesarean section deliveries (Shabnam, 2013)

Analysis of Data: Life Style Factors among Women

The Ottawa Charter for health promotion conceived in 1980s considered health as appositive concept which goes beyond healthy lifestyles to well being. So positive health encompasses social, psychological and physical elements of health and all these aspects has to be considered while measuring health (Garcia, 2000). Here try assess the general health status of the respondent using self rated health (SRH) and SRH has been widely used in the field of public health (Wu, et al. 2013).There is a close association between SRH and life style behavior. Low SRH scores among persons leads to chronic dis health conditions and it can be attributed to lack of attention given to include diet and physical activity. fruits and vegetables dominant food habits caused a lower incidence of cardiovascular disease and people having poor health reported with symptoms of tiredness and depression (Zarini et al.2014). Here we try to correlate between SRH and extent of disability rated on a four point scale according to the degree of activeness 1 fully active 2 confined to house hold activities 3 confined to basic activities 4 dependent on others. Another important criteria for understanding the general health status is existence of number of chronic health conditions among the respondents. The physical or mental diseases which lasts for more than one year and causes functional restrictions is considered as chronic disease

(Basu et al., 2016). We try to count the number of chronic conditions among the respondents and correlated with SRH and degree of activeness .The comparison of Scores of WHODAS2 is also attempted here.

Table 6.1 General Health Status of the Respondents

		Place of Residence of the Household		Total	Chi-Square Test value
Particulars	Divisions	Rural	Urban		
Self Rating of Health (SRH)	Excellent	46	50	96 (48 %)	2.196 (p=.334)
	Good	50	42	92 (46%)	
	Satisfactory	4	8	12 (6 %)	
Total		100	100	200	
Extent of Disability	Fully Active	52	58	110 (55%)	10.718 p=.005
	Confined to house hold Activities	48	34	82 (41%)	
	confined to basic activities	0	8	8 (4%)	
Total		100	100	200	
existence of Chronic Morbidity	.00(Nil)	70	50	120 (60%)	9.487 p=.000
	1.00 (One Condition)	12	14	26 (13%)	
	2.00 (2 or more Condition)	18	36	54 (27%)	
Total		100	100	200	
Correlation Between Self rating of Health & Extent of disability	.806 p=.000	Correlation Between Self rating of Health & existence of Chronic morbidity	.479 p=.000	Correlation Between Extent of disability & existence of Chronic morbidity	.433 p=.000

Source: Primary Data

The table 6.1 reveals SRH of the respondents.48per cent stated that the health is excellent and 46per cent stated that the health is in good condition and only 12per cent graded their SRH as satisfactory and no significant difference between rural and

urban areas is seen self assessment of health status (Chi-Square Value 2.196 p=.334). While looking into existence of disability though 55per cent opined that they are fully active a significant difference is seen is between rural and urban areas (Chi-Square Value =10.718 p=.005). 48per cent in rural area opined that they are confined to house hold activities an d 34per cent in urban areas have the same statement about the disability.8per cent in urban area stated their disability level they could perform only basic activities that is they can take care of themselves but not able to do the house hold activities. While analyzing the existence of chronic morbidity majority stated that they do not suffer from any chronic morbidity 60per cent (70per cent in rural areas and 50per cent in urban areas). 12per cent in rural and 14per cent in urban areas are suffering from one chronic condition and 18per cent and 36per cent in rural and urban areas are suffering from 2 or more chronic conditions. A significant difference between rural and urban areas are seen in the prevalence of chronic conditions (Chi square Value =.433 p=.000).The prominent chronic condition noticed in them are joint pains, head ache and fatigue. The dominance of chronic condition in urban areas can be attributed to the certain lifestyle and environmental factors related to urbanization is shifting up the burden of non communicable disease rates (WHO 2010). A positive and significant correlation is noticed between SRH & Extent of disability(r=.806 p=.000), Self rating of Health & existence of Chronic morbidity(.479 p=.000)and Extent of disability & existence of Chronic morbidity(.433 p=.000).It is evident that low rating of health and high degree of disability has a positive bearing with chronic morbidity prevalence rate. Lack of physical activity and unhealthy dietary patterns place a burden on society in the form of poor SRH, increases disability and increased number of chronic health conditions among people.

WHODAS2 SCORE Dissemination

WHODAS 2 has six domains and questions. Here we are comparing the aggregate average score of all domains and aggregate total score across rural and urban areas. The Aggregate average score of WHODAS2 is depicted in table 2. Except the average score of domain 2 no other scores showed a significant deviation between rural and urban areas. The average score of domain1 is 1.5767 , average score of domain 2is 1.602 rural area recording a score of 1.43 and urban area recording a score of 1.77 (t value =”-2.122 p=.035). Average score of domain 3 is 1.6225, Average score of domain 4 is 1.662 , aveage score of domain 5 is 1.53 , average score of domain 6 is 1.6788, and average total score of all domains (AVGTD) is 1.61. While investigating the correlations between Average total scores of all domains and self rating health, extent of disability and existence of chronic morbidity were all positive and significant (Correlation between AVGTD &self rating of health is.574 P=.000,Correlation between AVGTD & Extent of Disability is .557 p=.000, Correlation between AVGTD& Existence of Chronic morbidity is .559 p=.000). Rather than rural urban divisions it is the general health conditions which has a significant influence on WHODAS2 Scores.

Table 6.2 Dissemination of WHODAS2 scores of the Respondents

Place of Residence of the Household		N	Mean	t Value	Aggregate Mean Score
AVG D1	Rural	100	1.5167	-.785 p=.433	1.5783
	Urban	100	1.6400		
AVGD2	Rural	100	1.4320	-2.122 p=.035	1.602
	Urban	100	1.7720		
AVGD3	Rural	100	1.5800	.025 p=.587	1.6225
	Urban	100	1.6650		
AVGD4	Rural	100	1.6600	-.271 p=.787	1.662
	Urban	100	1.6640		
AVGD5	Rural	100	1.5050	-.025 p=.980	1.53
	Urban	100	1.5550		
AVGD6	Rural	100	1.6300	.562 p=.575	1.6788
	Urban	100	1.7275		
AVGTD	Rural	100	1.5544	.429 p=.453	1.6139
	Urban	100	1.6735		
	Correlation Between AVGTD& Self Rating of Health r= .574 p=.000	Correlation Between AVGTD & Extent Of Disability (r=.557 p=.000)	Correlation Between AVGTD &existence of Chronic Morbidity (.559 p=.000)		

Source: Primary Data

Well Being Index of the Respondent

Lifestyle behaviours has a close association with mental health and depression status. Results form various studies demonstrates that have lifestyle habits such healthy nutrition habits, were negatively associated with mental distress and positively with improved mental health (Sapranaviciute-Zabazlajeva, et al. 2022) Well being Index of the respondents has been studies in relation with depression felt by the respondents and seeking of expert for assistance. The mental health status of the respondents has been detailed in Table 6.3. The table 6.3 represents the average figures of well being index among the respondents. Average well being Index is 11.18 indicates majority opined some times for all questions indicating not so high mental health status among respondents and no significant difference between rural and urban areas are noticed.

Table 6.3 Descriptive Statistics of Well Being Index(Mental Ill Health Status) of the Respondents

Particulars	Minimum	Maximum	Mean value	Correlations
Well Being Index (Extent of mental ill-health status)	1.00	25.00	11.1800	Well Being Index & AVGTD R=.780 p=.000
Rural	1.00	25.00	11.7600	Well Being Index & Self Rating of Health=.617p=.000
Urban	1.00	24.00	10.6000	Well Being Index& Disability Status .710 p=.000
Test Value (t test)	t=1.109 p=.269			Well Being Index&The BMI status of the person .379 p=.000

Source: Primary Data

The well being Index has been correlated with WHODAS Index Value ,Self Rating of Health, Disability Status and the BMI of the person. As earlier indicated higher values of well being Index, WHODAS2 Index and Disability status shows higher level of mental ill health and overall health disability All the correlations are significantly positive indicating poor well being results in poor WHODAS2 score, self rating of health, Disability Status and High BMI. The close association life style factors and over all well being is emerged from the analysis.

Table 6.4 Relationship between Depression Status and Average Well Being Index value of the Respondents.

Particulars	**Depression**	**N**	**Mean**	**T test Value**	**Place of Residence & Depression status**
Average Well being Index Value	no	130 (65per cent)	9.2069	-4.657 p = .000	Chi-Square Value =.352 p = .358
	yes	70(35per cent)	13.9048		
Average Well	Expert help for	N	Mean	T test Value	Place of Residence&

being Index Value	Mental Health				Expert help for Mental Health
	no	177(88.5per cent)	11.19	.064 p = .949	Chi-Square Value .442 p=.329
	yes	23(11.08per cent)	11.08		

Source: Primary Data

The most prevalent psychological disorder among women in their prenatal period is anxiety and depression. Across the world wide about 15per cent women is found to be depressed during this crucial period (Rochat, 2011). The Prenatal depression rates vary from a very 4per cent to a paramount rate of 81per cent among the women in the world (Jafri et al., 2017). In the study area the rate of depression was 35per cent and person who took expert help for the depression are 11.08er cent. A significant association between well being Index and status of depression is revealed.(t test Value=-4.657 p=.000). The average score of well being index for depressed is 13.90 where as for non depressed is 9.2069. But no significant difference in mean scores of people seeking expert help and not going for expert help is seen. This is because majority do not go for medical treatment for depression as it is repulsion for people to seek help in the case of mental health. No significant association is seen between rural and urban area and status of depression. The risk of preterm birth and low birth weight babies are high in depressed women. (Marcus, 2009).

Health Conscious Behavior of the Respondents

The most important prerequisite for a health and successful pregnancy is the good health of the mother before conception. Many studies reinforced the strong interconnection between health of mother before and during pregnancy and maternal and child health outcomes., The impact of these linkages has great implications which is extended across generations (Kumaran, et al. 2017).The health conscious behavior of a person largely influence the general health status of the same. Here we try to find out the extent of health consciousness

among the respondents using five variables time spend for exercise, quantity of water intake, daily hours of sleep, Diet consciousness and regularity of food . One of the most vital component for healthy life styles is having an active life. Exercise, defined as physical activity or body movements performed to improve or achieve one or more components of physical fitness, and to maintain optimal health for a person. Many studies prove that women who keep exercise in their daily routine has less chance of developing gestational diabetes mellitus, and caesarean birth (Dunney, C., & Murphy, 2015).) Drinking at least 8 glasses of water in a day (Wolf, et al.2010), having ample sleep(7-8 hours for adults) (Lambrini, et al.2018)maintain regularity in consumption of food and have a balanced diet (Pitale, 2018) helped to achieve good health status which in turn will support good pregnancy period and outcomes. Here in table 6.5 we analyze the extent of presence of these variables among the respondents.

Table 6.5 Healthy Behaviour of the Respondents

	Place of Residence of the Household	Mean	Test Value
Time Spend for exercise	Rural	.6000	t test ='-4.463 p=.000
	Urban	9.0000	
Quantity of water Intake	Rural	5.1200	t test ='-4.609 p=.000
	Urban	6.1000	
Daily Hours of Amount of sleep	Rural	5.8000	t test ='-2.911p=.004
	Urban	6.2400	
Correlations	Well Being Index& Time spend for Exercise(-.155 p=.029)	Well Being Index& Quantity of water Intake(-.130 p=.067)	Well Being Index & Daily Hours of Sleep (--.230 p=.000)

Source: Primary Data

The average time spend on exercise was vey less both in rural and urban area less than .6 minutes in rural area and an average of 9 minutes in urban area and a showed a statistically significant difference between the two area. (t test= 4.4.463 p=.000).This is read along with per centage of pregnant who are doing physical activities.. Only 2per cent in rural area and 14per

cent in urban area do a any kind of exercise. Fear of anything happening to fetus increased tiredness and physical discomfort ability was stated as reasons for not doing work outs, quantity of water intake was less than the standard level of 8 glasses mean amount of water intakes is only 5.12 ounce glasses of water in rural areas and 6.10 ounce glass water in urban areas. Significant difference between rural and urban areas is noted, women in urban areas drink more water than women in rural areas but sufficient quantity is not consumed by women in rural and urban areas. The average hours of sleep was 5.800 in rural area and 6.24 in urban areas again signifying less amount of sleep in rural areas than urban areas among respondents, but both areas women sleep for fewer hours than required for an adult. But women are conditioned by norms and circumstances of society they have limited access to resources and limited authority is destined to work more at home and even work site, for no income or less income resulting in reduced consumption of nutritious food, less leisure and making them less health conscious (Annapuranam Karuppannan 2016).The Well Being Index (Mental Health Status) has been found to have correlated with time of exercise, quantity of drinking water and hours of sleep. All correlations are significantly negative indicating the cultivation of good health habits have a positive influence on mental health status.

Table 6.6 Diet Consciousness among the Respondents

Regularity of Food		Place of Residence of the Household		Total	Mann Whitney Test
		Rural	Urban		
Proper Timing of Food	Irregular	32	28	60	Mann-Whitney U 4800,Z='-.616 p=.538
	Regular	68	72	140	
	Total	100	100	200	
Diet Consciousness		Rural	Urban		
	Yes	2	24	26	
Consciousness of Diet	no	98	76	174	Mann-Whitney U8950,Z='-4.614p=.000

While analyzing the diet consciousness (table 6.6)among respondents only 2per cent in rural areas and 24per cent in urban areas are diet conscious majority is not conscious of diet. A significant difference between rural urban areas are found in the diet consciousness urban women are more diet conscious than rural women(Mann Whiney U=8950 z=-.4.64 P=.000). While looking in to regularity of food majority in rural areas 68per cent and majority in urban areas 72per cent keep regular time for their food intake and no significant difference between rural and urban areas has been found(Mann-Whitney U 4800, Z='-.616 p=.538). Though regularity in food is maintained no keen attention is paid to the nutritional value of the food taken.

Adverse Pregnancy Outcomes among the Respondents

Pregnancy is a crucial time and good and efficient maternal care is congenial for the development of the baby and healthy life of the mother. Maternal life style factors like physical activity, BMI, dietary intake, mental and emotion health has been associated with adverse pregnancy results like lower birth weights and preterm births. Adverse neonatal outcomes may impact profoundly on children's later development. However, while most of previous studies focused on a single factor and its impact on adverse pregnancy outcome a comprehensive profile simultaneously considering the effects of multiple lifestyle contributors like the impact of maternal lifestyle, including physical activity, dietary behaviors, and sleep problems and depression in early pregnancy on neonatal outcome is attempted in the study. Many adverse pregnancy outcomes is tailored by preconception environment (time span of 14 weeks before to up to 10 weeks after conception) which is to a large extent influenced by maternal preexisting medi-cal conditions and modify-able life styles factors of mother like Body Mass Index, Emotional and mental health of the mother (Oostingh, et al., 2019). Here in table 7 we try to divulge the relationship between life style of mother as well as with pre existing maternal health condition with the existence of mate-rnal morbidity and adverse pregnancy outcome. An attempt is made to look in to the relationship preexisting conditions before pregnancy, gynaecological and obstetric morbidity suffered by the women

during the pregnancy time. In this section details of pregnancy of the respondents are discussed.

As already pointed out the criteria for the inclusion in sample size is to that a female who has given birth to a live child in last one year. So naturally age of the child will be less than one Year (12 months). The basic information about the pregnancy like the sex of the baby, mean age of the child, weight of the baby, total number of the pregnancies, age of last pregnancy, outcome of pregnancy, status of fertility treatment, history of adverse pregnancy outcome, total weeks of pregnancy at the time of pregnancy, hours of labor and nature of delivery are discussed in the table 7 Among the babies born majority 56per cent were male babies and 44per cent were female babies and no significant difference between rural and urban areas are seen (Chi-Square Value =.325 and p=..335). Mean age of the child is 8.2 months in rural areas and 7.69 and a significant difference between rural and urban areas are seen(t value 3.679 p=.000). Mean weight of the baby is 2519 grams and total number of pregnancies is 1.350 and no significant difference between rural and urban areas are seen. Mean age of last pregnancy was 26.02 and no significant difference between rural and urban areas are seen. While analyzing the outcome of pregnancy 76.5per cent have a full term pregnancy and 23.5per cent pregnancies were pre term and no significant difference between rural and urban areas is seen (Chi-Square Value =.695 p=.404).

Table 6.7 Details of the Pregnancy of the Respondents

Particulars	Place of Residence of the Household		Total	Test Value
Sex of the Baby	Rural	Urban		
Male	54	58	112(56 %)	Chi-Square Value =.325 p=.335
female	46	42	88(44%)	
Total	100	100	200	
Mean Age of the Child	8.2	7.698	7.94	t Value 3.679 p=.000
Weight of the baby	2474 grams	2564 grams	2519 grams	t Value=-1.013 p=.312
Total Number of Pregnancies	1.35	1.35	1.35	t value =.000 p=1
age of last pregnancy	25.66	26.38	26.02	t value -1.573 p=.117

outcome of last pregnancy	Rural	Urban		
live birth:-Full term	79	74	153(76.5per cent)	Chi-Square Value =.695 p=.404
live birth preterm	21	26	47(23.5per cent)	
Total	100	100	200	
Fertility treatment with Pregnancy	Rural	Urban		
no	84	68	152 (76per cent)	Chi-Square Value =7.018p=.008
yes	16	32	48 (24per cent)	
Total	100	100	200	
History of adverse Pregnancy outcome	Rural	Urban	Total	
no	72	62	134(67per cent)	Chi-Square Value =3.916p=.034
yes	28	38	66 (33per cent)	
Total	100	100	200	
Total weeks of Pregnancy during the time of pregnancy	Rural	Urban	Total	
Mean Value	33.6	34.79	33.925	t value -3.461 p=.001
Hours of labour	6.25	5.33	5.7	t=3.561 p=.000
Nature of Delivery	Rural	Urban		
normal	65	57	122 (61per cent)	Chi-Square Value=1.345p=.246
Caesarean	35	43	78 (39per cent)	
Total	100	100	200	

Source: Primary Data

While analyzing the per centage of respondents undergone fertility treatment 76per cent has not taken any fertility treatment and 24per cent has taken fertility treatment and a significant difference between rural and urban areas are seen.(Chi-square Value =7.018 p=.008). In urban areas the people undergoing fertility treatment is higher. While analyzing history of adverse pregnancy outcome 28per cent in rural areas and 38per cent in urban areas has suffered earlier with adverse pregnancy outcome and a significant increase difference is seen between rural and urban areas (Chi-Square value =3.916 p=.034)While analyzing total number of weeks of pregnancy

the average number of weeks was 33.600 in rural areas and 34.790 in urban areas . and a significant difference between two areas is seen(t value -3.461 p=.000). In urban area the gestation period is little e bit higher in than in rural areas.. Mean hours of lab our in rural areas is 6.25 and in urban areas is 5.33 and a significant difference between the two areas is seen. (t=3.561 p=.001).While analyzing the nature of delivery 61per cent stated that they have normal delivery while 39per cent stated that they have caesarean delivery. And no significant difference between rural and urban areas are seen (Chi-Square Value =1.345p=..246).

Pre –Conception Health Condition of the Mother

Health of mother before becoming pregnant is very crucial in determining healthy pregnancy. Health behavior before pre conception which includes food habits, lifestyles, chronic health problems like diabetes, hypertension can harm the unborn and women (Barker, M et al.2018). Here we try to look in to certain health characteristics posses by the respondents before pregnancy. The health conditions which are looked in to are polycystic ovary syndrome, diabetes, Hyper lipidemia, anaemia, hypertension, irregular menstruation, uterus related complaints and fatigue. All these conditions were assesses using Yes or no questions. Value 0 was assigned for absence of disease and 1 for presence of disease. The prevalence of these diseases across rural and urban areas are depicted in the table 4.25. 36per cent in rural areas and 52per cent in urban areas are suffering from polystic ovary disorders and significant difference between rural and urban areas are identified (Chi-Square Value =5.195 p=.016).The analysis of other health disorders type 2 diabetes, hyperlipidemia, anaemia irregular menstruation cycle, uterus related complaints all were significantly high in urban areas than in rural areas(p value corresponding to chi-square is less than .05). In the case of hyper tension no significant difference between rural and urban was seen and over all prevalence per centage was 26per cent. While looking in to the average number of disorders prevailing in rural and urban areas in rural areas it was 2 .12 in urban areas it was 3.3 and total average was 2.71

and significant difference between rural and urban areas are seen (t value =-3.7267 p=.000)

Table 6.8 Pre-Conception Health Condition among the Respondents

Health Disorders	**Place of Residence of the Household**		**Total**		**Place of Residence of the Household**		**Total**
Polycystic ovary syndrome	Rural	Urban		Type 2 Diabetes	Rural	Urban	Total
no	64	48	112(56 per cent)	no	78	50	128 (64per cent)
yes	36	52	88(44per cent)	yes	22	50	72 (36per cent)
Total	100	100	200	Total	100	100	200
Chi-Square Value 5.195 p=.016				Chi-Square Value17.014 p=.000			
Hyper lipidemia	Rural	Urban	Total	Anemia	Rural	Urban	Total
no	78	56	134 (67per cent)	no	70	46	116(58per cent)
yes	22	44	66 (33per cent)	yes	30	54	84(42per cent)
Total	100	100	200	Total	100	100	200
Chi-Square Value 10.94p=..001				Chi-Square Value 11.823 p=.001			
Hyper Tension	Rural	Urban	Total	Irregular menstruation cycles	Rural	Urban	Total
no	77	71	148 (74per cent)	no	72	48	120 (60per cent)
yes	23	29	52 (26per cent)	yes	28	52	80 (40per cent)
Total	100	100	200		100	100	200
Chi-Square Value.936p=..333				Chi-Square Value 12.00 p=.000			

Uterus related	Rural	Urban	Total	Fatigue	Rural	Urban	Total
no	72	84	156 (78per cent)	no	77	67	144 (72per cent)
yes	28	16	44 (22per cent)	yes	23	33	56 (28per cent)
Total	100	100	200	Total	100	100	200
Chi-Square Value4.196 p=.04				Chi-Square Value2.48 p=.078			
Pre-Conception Health Condition (average aggregate Values)							
Rural		Urban		Total		T value	P
2.12		3.3		2.71		-3.767	0

Source: Primary Data

Obesity among mother, maternal health conditions, smoking and substance use of mother are closely related with the occurrence of adverse outcomes. Different types of prenatal exposures and outcomes which evolve from social and structural factors surrounding a man. Differences in these factors foster health inequalities in life of child and mother (Ospina, M., etal.2020).

Factors Affecting Adverse Pregnancy Outcome

In the study pregnancy outcome has been classified in to two. Life birth full term(1) and live birth pre term.(2). Still birth incidents are not included in the study. While analyzing the correlation between weight of the baby and pregnancy outcome the result was significant negative correlation of -.580 and p-.000 signifying preterm babies will have lower weight compared to full time babies which is a known fact. Taking this factor in to consideration weight of the baby taking as a proxy for adverse pregnancy ourcome (higher weight of babies implies good pregnancy outcome and vice versa) a regression has been run to identify the factors which influences the weight of the baby. Various studies prove that lifestyle factors mental health status height and weight of the mother , diet and overall health status, early pregnancy or even before conception can influence the pregnancy outcome (Maas et al.2021). The dependent factor taken for the regression was weight of the baby and independent variables taken are BMI of the person, pre pregnancy health condition, age of last pregnancy, propensity to consume, WHODAS2 Score, Well being Index in aggregate.

Among these variables BMI of a person, propensity to consume, WHODAS2 score and aggregate score of well being is closely associated with life style of person. Life style factors are the breeding factor for pre pregnancy health condition(ie existence of number of disease in peri conception period).

Table 6.9 Factors Affecting Adverse Pregnancy Outcome: Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.729[a]	0.531	0.516	436.89504	1.89

Source: Computed

Table 6.10 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41668485.33	6	6944748	36.383	.000[b]
	Residual	36839314.67	193	190877		
	Total	78507800	199			

Source: Computed

Table 6.11Regression Coefficients

Model	Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4787.667	310.95		15.397	0
	BMI of the respondent	-26.216	6.778	-0.208	-3.868	0
	Pre pregnancy condition	-114.164	17.235	-0.416	-6.624	0
	age of last pregnancy	-36.192	11.722	-0.187	-3.087	0.002

	Propensity to consume	-692.747	212.87	-0.175	-3.254	0.001
	WHODAS 2Score	-15.556	7.699	-0.167	-2.021	0.045
	Wellbeing aggregate	2.209	7.166	0.026	0.308	0.758

a. Dependent Variable: Weight of the baby

Source: Computed

The table gives us model summary. This table gives R, R2 value and Durbin-Watson D statistic. R value which is correlation coefficient is .729 which is a high degree of correlation among the dependent and independent variables and R2 value is .525 which explains how much variation of dependent variable is explained by independent variables. In this case it is 53.1per cent. The Durbin-Watson D statistic is 1.89 indicating no auto correlation between independent variables.

Table gives the value of ANOVA indicates that the regression model predicts the dependent variable significantly well. Here, p < 0.0005, which is less than 0.05, and indicates that, overall, the regression model statistically significantly predicts the outcome variable (i.e., it is a good fit for the data).

Table 9 c represents values of the coefficients of regression equation for predicting the dependent variable from the independent variable. These are called un standardized coefficients because they are measured in their natural units. The table reveals all the independent variables except well being Index is significant predictor of weight of the baby.

The regression equation can be framed as

Y = b0 + b1*x1 + b2*x2 + b3*x3 + b4*x4 + b5*x5+error term

b0= Constatnt,x1=BMI of the respondent,x2=Pre pregnancy condition, x3=age of last pregnancy, x4=propensity to consume, x5=WHODAS2 score+ error term

so writing with the beta coefficients equation become

y=4787.667- 26.216x1 -114.164x2 -36.192x3 -692.747x4 -15.556 x5+errorterm

Every unit increase in BMI causes -26.216 gram decrease in weight of the baby, every unit increase in pre pregnancy health condition score cause -114.164 gram decrease in the weight of the baby. One point increase in the age of pregnancy causes -36.192 gram decrease in the dependent variable, one unit increase in propensity to consume causes -692.747 point decrease in the weight of the baby increase in propensity to consume is correletaed with increase in BMI which results in low birth weight and one point increase in WHODAS2score indicates -15.556 point decline in the birth weight of the baby. What is up coming from the regression is that BMI of the person, age of the respondent, ,propensity to consume and WHODAS score negatively influence pregnancy outcomes. The life style factors like BMI, and propensity to consume, the demographic factor like age of the mother , the physical fitness factor like WHODASD2 score and preconception disability score which is a by product of life style factor all negatively impacts the weight of the baby and are contributing factor in the adverse pregnancy outcomes. So what is emerging from the analysis is that serious measure to alter lifestyle factors can effectively change the probability of adverse pregnancy outcome.

Reasons for Premature Delivery and Caesarean Delivery among Respondents

Many neo natal issues like respiratory distress syndrome, necrotizing enter colitis and neonatal sepsis has been associated with premature delivery. The long term development of such child's are negatively impaired due to delays in cognitive and behavioural development (Lasiuk, G. C et al. 2013).The details of reasons of caesarean delivery is detailed in table 6.12.

Table 6.12 Reason for Premature Delivery and Cesarean Delivery

Reasons for premature delivery	Place of Residence of the Household		Total	Chi Square and p value
	Rural	Urban		
Infections	1 (4.8per cent)	4 (15.4per cent)	5(10.6per cent)	2.192 p=.511
Diabetes	2 (9.5per cent)	4 (15.4per cent)	6 (12.8per cent)	
high blood pressure	16(67.2per cent)	15(57.7per cent)	31(66per cent)	
placental abruption	2(9.5per cent)	3(11.5per cent)	5(10.6per cent)	
Total	21(100per cent)	26(100per cent)	47(100per cent)	
Reason for Caesarean Delivery	Rural	Urban		
Prolonged labor	10 (28.6per cent)	4(9.3per cent)	14(17.9per cent)	24.044 p=.000
Abnormal positioning	9(25.7per cent)	4(9.3per cent)	13(16.7per cent)	
Fetal distress	2(5.7per cent)	13(30.2per cent)	15(19.2per cent)	
Repeat cesarean	11 (31.4per cent)	5(11.6per cent)	16(20.5per cent)	
Chronic health condition	3(8.6per cent)	17(39.5per cent)	20(25.6per cent)	
Total	35(100per cent)	43(100per cent)	78(100per cent)	

Source: Computed

High blood pressure experienced by mother lead to premature delivery in 66per cent cases and no significant difference is seen between rural and urban areas. The international health care community has fixed the ideal rate of caesarean as 10to

15per cent of total deliveries in an year. All most in all nations irrespective of being developed and developing caesarean rates are increasing sharply and these increased rates are justified on the ground stating that caesarean section reduce maternal and peri natal mortality and morbidity. Caesarean Sections are also a surgery and is associated with .short and long term risk which has long extensive impact on the women, her child and on her future pregnancies. The risk vulnerability is high among women who have limited reach to comprehensive obstetric care (Betran, A. P et al.2016). The major reason for caesarean in the study area was chronic health condition in urban areas(39.5per cent) and abnormal positioning of baby in rural areas(25.7per cent) and a significant difference in reasons of caesarean is seen between rural and urban areas(Chi-Square Value = 24.044 p=.000).

Table 6.13 Correlation between Nature of Delivery and Life Style Factors

		Nature of Delivery	Self Rating of Health	Extent of Disability	BMI of the respondent	outcome of last pregnancy
Nature of Delivery	Pearson Correlation	1	.503**	.492**	.278**	.574**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	200	200	200	200	200

Source: Computed

**. Correlation is significant at the 0.01 level (2-tailed).

The relationship between incidence of caesarean section delivery with life style factors like self rating of health, extent of disability and BMI has been depicted in the table. All factors have significant positive correlation with nature of delivery implying life style factors significantly contribute for the

incidence of caesarean delivery. Outcome of last pregnancy that is chances of preterm birth is higher in the case of caesarean delivery compared to normal delivery.

Prevalence of Reproductive Morbidity among Women in the Study Area

Reproductive morbidity is the diseases affecting the reproductive system that may be or may not be the result of reproduction process. World Health Organization (1992) has classified reproductive morbidity in to three types:- obstetric or maternal morbidity , gynaecologic, and contraceptive morbidity. Gynaecologic Morbidity is defined as structural and functional disorders of the reproductive system which has no connection with pregnancy and child birth. Obstetric or maternal morbidity is the morbidity condition of a pregnant woman on account of pregnancy and its management and contraceptive morbidity refers to disease conditions arousing as a result of efforts to curtail fertility (WHO 1992). Of these morbidities discussed we will b try to analyse the prevalence of first two types of morbidity gynaecological and obstetric and contraceptive morbidity is not included in the study as it is above the purview of the study. In this section we will try to bring out the relationship between life style factors and reproductive morbidity, the components of ante natal and post natal care and their relationship with reproductive morbidity

From various literature the different types of gynaecological morbidity has been identified and most prevalent ones were listed out and responses of the respondents are recorded in the questionnaire with yes or no Question for yes (1) was recorded if symptoms are present no (0) for the absence of diseases. The major gynaecological morbidities listed out were reproductive-tract infection, Dysmenorrhoe, Menstrual problems, Premenstrual syndrome, Prolapse, Abnormal vaginal discharge, Local lesions and infestations Reproductive tract infections (RTIs),: sexually transmitted diseases (STDs), endogenous infections, which is the after effect of over growth of micro organisms usually seen in the genital tract of female. Dysmenorrhoea is the scientific terminology for painful

menstrual periods which are caused by uterine contractions. By menstruation problems we mean heavy periods, scanty periods, absent periods and painful periods. By pre menstruation syndrome we mean range of emotional and physical experiences women undergoing two weeks before period begins. It includes problems like bloating; irritability headaches backache acne etc. A uterine prolapsed is a condition where the internal supports of the uterus become weak over time. Abnormal vaginal discharge means change in smell, colour, or discharge texture due to imbalances in the presence of amount of bacteria. The term local lesion means infections of skin in the genital areas which is localized with only limited systemic spread of the infecting organism. These are the common gynaecological morbidities noticed in study area and all others problems other than mentioned above are classified as other gynaecological morbidities.

The existences of obstetric morbidity among the respondents have been examined using the list of common maternal morbidities which has been involved from the review of various literatures. The main obstetric morbidity which has been discussed here as cardiovascular problems such as heart disease and blood vessel problems, Gestational Diabetes, High blood pressure, Infections especially from caesarean section, Blood clots, Bleeding (sometimes called haemorrhage), Anaemia (low iron in the blood), Nausea and vomiting (sometimes called morning sickness) and hyper emesis gravid arum (severe morning sickness), eclampsia, sepsis/blood infection, hysterectomy, needs breathing assistance such as a ventilator or needs a blood transfusion, Pre term birth, Placenta abruption, intra-uterine foetal death, infections, Birth defects, Ectopic pregnancy, illness in the newborn period .A total of 19 obstetric problems has been identified and asked respondent to respond about the same by asking Yes or No questions(0) was given for absence of disease and 1 for presence of disease and the existence of conditions was summed up so got a maximum of 19 and a minimum of 0.The reproductive morbidity status of the respondents are depicted in table 6.14

Table 6.14 Reproductive Morbidity Status of the Respondents

Place of Residence of the Household	Rural	Urban	Total	T Value and level of significance
Existence of Gynecological Morbidity (Mean Value)	1.6400	2.3400	1.9900	-2.977 p=.003
Existence of Obstetric Morbidity (Mean Value)	4.9400	5.9600	5.4500	-2.422 p=.016
Nature of Delivery	normal	Caesarean	Total	
Existence of Gyneco-logical Morbidity(Mean Values)	1.7787	2.3205	1.9900	-2.226 p=.027
Existence of Obstetric Morbidity (Mean Value)	5.0574	6.0641	5.4500	-2.330p=.021
outcome of last pregnancy	live birth:Full term	live birth preterm	Total	
Existence of Gynecological Morbidity (Mean Value)	1.7843	2.6596	1.9900	-3.165p=.002
Existence of Obstetric Morbidity (Mean Value)	5.0196	6.8511	5.4500	-3.762p=.000
Correlation		Value of r	p value	
Existence of Gynecological Morbidity & Pre Pregnancy Conditions		0.652	0.00	
Existence of Gynecological Morbidity & Obstetric Morbidity		0.477	0.00	
Existence of Gynecological Morbidity &BMI of the Respondent		0.318	0.00	
Existence of Gynecological Morbidity & age of the Respondent		0.283	0.00	
Existence of obstetric Morbidity& Pre Pregnancy Conditions		0.224	0.00	
Existence of obstetric Morbidity & BMI of the Respondent		0.221	0.00	
Existence of obstetric Morbidity & age of the Respondent		0.262	0.00	
BMI & Pre Pregnancy Conditions		0.380	0.00	
Age & Pre Pregnancy Conditions		0.565	0.00	
BMI & Age of the respondent		0.276	0.00	

Source: Primary Data

While analysing the existence of gynaecological morbidity the mean number of gynaecological morbidity in rural areas is 1.64 and in urban areas it is 2.34 and a significant difference is seen in mean number of existence of gynaecological morbidity in the rural and urban areas are seen (-2.997 p=.000). Urban areas have greater degree of gynaecological morbidity than in rural areas. In the existence of obstetric morbidity also significant difference in mean values are noticed 5.05 in rural areas and 6.06 in urban areas. Significant mean value difference is noticed in the existence of gynaecological and obstetric morbidity conditions and in caesarean and normal delivery rates. The mean number of gynaecological and obstetric morbidity of normal delivery was 1.7 and 5.05 where as in the case of caesarean deliveries the prevalence rate was 2.3 and 6.04 .Outcome of the pregnancy is also highly determined by the existence of gynaecological and obstetric morbidity. Mean value of gynaecological and obstetric morbidity for live birth was 1.7 and 5.01 and for pre term birth the mean value of gynaecological and obstetric morbidity is 2.65 and 6.85 respectively. Higher mean values of preterm pregnancies indicate the fact that gynaecological and obstetric morbidity is a key factor in determining outcome of delivery. A significant close association between gynaecological morbidity and obstetric morbidity (r=. .477 p=.000), pre pregnancy conditions(r=.652 p=.000), BMI (R=.38 P=.000) and age of the respondents is (.283 p=.000) is noticed. It indicates that prevalence of gynaecological morbidity increases with obstetric morbidity, pre pregnancy conditions, BMI of the person and age of the respondents. The obstetric morbidity is associated with pre pregnancy conditions(r-.221 p=.000), BMI of the respondents (r=.221 p=.000) and age of the respondents (r=.262 p=.000)..BMI and pre pregnancy conditions(r=.38 p=.000) and age of the respondents is closely related(r=.276 p=.000). Age and pre pregnancy conditions is also closily related(r=.565 p=.000). The obstetric morbidity gynaecological morbidity and pre pregnancy condition are highly correlated and they move together. These three conditions are positively influenced by the BMI of the respondents and age of the respondents. As age and BMI increase chances of being afflicted with preconception

health disorders gynaecological morbidity and obstetric morbidity also increases.Many social and physical factors like pollution, stress, increased crime and lifestyle associated with urban areas are potentially harmful for achieving good health standards (O'Reilly, et al.,2011).

Factors affecting Obstetric Morbidity:-Regression Analysis

The impact of maternal morbidity is multi magnitude extending beyond physical and physiological to social and economic arenas. Maternal morbidity is associated with adverse pregnancy outcome.So measures to prevent and reduce maternal morbidity will improve the health and well being of the new born as well as the mother (Gelleret al.2018). We have fitted a regression equation by taking obstetric morbidity (Number of obstetric morbidity condition among the respondents) as dependent variable and Well Being Index Value, age of last pregnancy, BMI of the Respondent, Existence of gynecological Morbidity (number of gynecological conditions), Pre Pregnancy Conditions(Number), Aggregate Score of WHODAS2 as independent variables. The result of regression is summarized in tables 6.15, 6.16,6.17.

Table 6.15 Factors Affecting Obstetric Morbidity:-Regression Analysis - Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.656[a]	0.43	0.413	2.30965	1.896

Source: Computed

The table 12 a gives us model summary This table gives R, R2 value and Durbin-Watson D statistic Correlation (R) is .656 which is a high degree of correlation among dependent and independent variables and R2 value is .430 which explains how much variation of dependent variable is explained by independent variable. In this case it is 43per cent. The Durbin Watson D statistic is 1.89 indicating no auto correlation.

Table 6.16 ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	777.941	6	129.657	24.305	.000[b]
Residual	1029.559	193	5.335		
Total	1807.5	199			

Source: Computed

Table 6.16 indicates that the regression model predicts the dependent variable significantly well Here, $p < 0.0005$, which is less than 0.05, and indicates that, overall, the regression model statistically significant and it is fit to predict the outcome variable (i.e. it is a good fit for the data).

Table 6.17 Represents coefficients of the independent variables of the regression equation for predicting the changes in the dependent variable These are called un standardized coefficients because they are measured in their natural units

Table 6.17 Regression Coefficients

Model		Un standardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3.141	1.621		-1.938	.054
	Pre Pregnancy Conditions	-.089	.118	-.067	-.759	.449
	age of last pregnancy	.159	.064	.171	2.497	.013
	Existence of Gynecological Morbidity	.375	.153	.211	2.457	.015
	BMI of the Respondent	.074	.035	.127	2.083	.039
	Aggregate Score of WHODAS2	.150	.041	.335	3.678	.000
	Well Being Index Value	.062	.036	.151	1.716	.088

Source: Computed

The table 6.17 reveals all the independent variables Pre pregnancy conditions (p value greater than .05) and well being index value which is significant at 10per cent not at 5per cent level of significance (p=.088) all variables are significant. Variables in predicting the existence of obstetric morbidity as the p value of the coefficient is less than .05

The regression equation can be frames as

Y = b0 + b1*x1 + b2*x2 + b3*x3 + b4*x4 +error term

x1=age of last pregnancy, x2=Existence of gynaecological morbidity, x3 as BMI of the respondents b4 as aggregate score of WHODAS2

Substituting with coefficients the regression equation is written as

Y=.159x1+.375x2+.074x3+.150x4+error term

What the equation indicates is that one unit increase in age causes .159 units increase in existence of obstetric morbidity, one unit increase in the existence of gynaecological morbidity causes .375 points increase in the existence of obstetric morbidity and one unit increase BMI causes .74 unit increase in the existence of obstetric morbidity and one unit increase WHODAS2 score causes .15 units increase in existence of obstetric morbidity . So above mentioned factors influence the existence of obstetric morbidity

Life Style Factors and Reproductive Morbidity among the Respondents

World Health Organization states the root cause of silent epidemic of non communicable disease is life style. Life style involves include physical activity, diet and BMI sleep patterns, social relationships mental health status smoking, drinking, and drug consumption. A persons quality of life and health standards are determined by life style Following of unhealthy lifestyle influence the chances of disability, illness and even death (Fortin, M., etal.2014).. Here we try to understand the association between the existences of reproductive morbidity an life style factors. Existence of reproductive morbidity is

measured by summing up the numbers of gynaecological and obstetric morbidity conditions prevailing among the respondents. The life style factors taken are score of WHODS2 which measure overall physical fitness of a person, Well Being Index Score: measure of mental health well being, time spend on exercise, daily hours of sleep ,consumption of nutritious food (the responses has been recorded on a five point scale 1 always,2 often 3 sometimes 4 occasionally and 5 never) and BMI of the respondent. A regression has been run taking reproductive morbidity as dependent variable and all above mentioned life style factors as independent variable. The results of regression is summarized in table 6.18,6.19and 6.20.

Table 6.18 Life style factors and Reproductive Morbidity: Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.797[a]	.634	.623	2.52173	1.761

Source: Computed

a. Predictors: (Constant), BMI of the Respondent, Score of WHODAS 2, Time Spend for exercise, consumption of Healthy food, Daily Hours of Sleep, Well Being Index (dependent Variable: taking reproductive morbidity)

Table 6.19 ANOVA

	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Regression	2130.083	6	355.014	55.827	.000[b]
Residual	1227.312	193	6.359		
Total	3357.395	199			

Source: Computed

Table 6.20 Regression Coefficients

	Un standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.401	1.494		-.268	.789
Score of WHODAS2	1.095	.248	.299	4.415	.000
Well Being Index	.139	.038	.258	3.670	.000
Time Spend for exercise	.004	.014	.014	.288	.774
Daily Hours of Sleep	-.456	.173	-.137	-2.638	.009
consumption of Healthy food	.755	.135	.283	5.583	.000
BMI of the Respondent	.186	.035	.236	5.248	.000

Source: Computed

The table 6.18 gives us model summary This table gives R, R2 value and Durbin-Watson D statistic Correlation (R) is .797 which is a high degree of correlation among dependent and independent variables and R2 value is .623 which explains how much variation of dependent variable is explained by independent variable s. In this case it is 62.3per cent. The Durbin Watson D statistic is 1.76 indicating no auto correlation (rule of thumb used in regression is that is that DW test statistic values in the range of 1.5 to 2.5 are relatively normal. and taken as an indication of no auto correlation

Table 4.33b indicates that the regression model predicts the dependent variable significantly well. Here, $p < 0.0005$, which is and indicates that, overall, the regression model statistically significant and it is fit to predict the dependent variable (i.e. it is a good fit for the data).

Table 6.19 Represents coefficients of the independent variables of the regression equation for predicting the changes in the dependent variable These are called un standardized coefficients because they are measured in their natural units. In the above regression all the variables except time spend for exercise are

good predictors of dependent variable as the p value of the coefficient is less than .05.

The regression equation can be frames as

Y = b1*x1 + b2*x2 + b3*x3 + b4*x4 +b5x5error term

b0= intercept term is not significant. So it has been avoided in writing the regression, x1=Score of WHODAS2, x2= well being Index, x3 =is Daily hours of sleep x4 = consumption of healthy food, and x5 = BMI of the respondent.

Substituting with coefficients the regression equation is written as

Y=.1.095x1+.319x2-.456x3+.755x4+.186x5error term

What the equation indicates is that one unit increase WHODAS2 Score causes 1.095 units increase in existence of reproductive morbidity, one unit increase in the well being Index causes .319 points increase in the existence of reproductive morbidity .Well being Index in the mental ill health status Index as mental ill health increases morbidity burden also increases and one unit decline in sleep causes .456 units increase in reproductive morbidity ,one unit increase in consumption of nutritious food causes .75 units increase in reproductive morbidity .The consumption of nutritious food is mainly taken by women with complication sin pregnancy so a positive association is noted between consumption of health food and reproductive morbidity and one unit increase in BMI causes .186 unit increase in the existence of reproductive morbidity

The results of regression states life style factors like physical and mental fitness, diet intake sleep and BMI of a respondent are closely associated with the existence of reproductive morbidity.

Conclusion

One of major problem among women in Kerala is reproductive morbidity and reproductive morbidities are leading to adverse pregnancy outcome which has a long lasting impact on the

health of mother and baby. Women's health during pregnancy child birth and post partum period is often referred as maternal health. Following a healthy lifestyle during peri natal, natal and post natal period will influence the health of offspring in his infancy, childhood and adulthood. Health and lifestyle choices of mother before pregnancy, during pregnancy and during post partum period are risk factors affecting maternal health and odds of offspring developing chronic health conditions in the future(Bryce etal., 1989).Having unhealthy lifestyles resulted in adverse pregnancy outcomes. The major reason for having high reproductive morbidity and preconception health condition was the lack of following health life style. Existence of gynaecological and obstetric morbidity was found more in urban areas than in rural areas. Presence of these morbidities is leading to preterm birth and caesarean births. Significant association between pre pregnancy condition, obstetric morbidity, and gynaecological morbidity, BMI of a person and age of the person is seen. Here existence of one condition leads to other. It is like a vicious circle starts with higher BMI leading to higher pre pregnancy conditions leading to higher gynaecological and obstetric morbidities and presence of such morbidities leading to caesarean deliveries and adverse pregnancy outcome. Change in life style factors help to reach healthy BMI and other associated risk factors will also be reduced.

In the regression to determine the factors affecting obstetric morbidity demographic factors like age of the respondent, presence of gynaecological morbidity, lifestyle factors like BMI of the respondent , WHODAS2 Score and Well Being Index value are significant predictors of existence of obstetric morbidity.

In the regression equation to find out the influence of life style factors on reproductive morbidity the following results emerged. The life style factors like WHODAS 2 Score, Well Being Index, daily hours of sleep, consumption of healthy food are significant factors in determining reproductive morbidity. The metabolic factors reflects in pre pregnancy conditions has been closely associated with BMI, WHODAS2 Score and well being Index. So life style and metabolic factors are significantly associated

with reproductive morbidity. And reproductive morbidities lead to health emergencies like increased cesarean rates and adverse pregnancy outcomes.

Measures to provide adequate nutrition, managing weight and developing pro attitude to exercise may result in positive pregnancy experience. In additional to physical health mental health should also be given importance as reproductive health is a by product of both physical and mental well being of the pregnant women. Health care professionals has to purposefully educate their patients regarding the advantages of lifestyle changes, should come forth with strategies for the in cultivation of healthy lifestyle, and cultural social and financial barriers relating to good quality pregnancy health care has to be mitigated. Proper provision for the access to health resources has be ensured in all critical situations. Such quality changes will bring corrective changes in life style and will reduce the burden of reproductive morbidity.

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7

Socio- Economic Correlates of Marriage Migration in India

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Marriage migration in India is the largest permanent migration in the world (Fulford, 2013). As per the latest Census (2011), around 37 per cent of the population in India (453.6 million) is migrants (at present settled in a place different from their previous residence). Notably, 69.68 per cent women and 4.27 per cent men among them have migrated on account of marriage (Census of India, 2011). This visible gender gap is worth in the back ground of prevailing social realities in the country.

Migration comprising the movement of human and social capital from one place to another is an important field of study that attracts alternative, interdisciplinary and multidisciplinary approaches. Marriage, as an institution, is significant in initiating a large portion of permanent migration, specifically of women, in India. Therefore, marriage migration is an indispensable part of institutional economics, sociology and gender studies. Marriage migration brings about significant structural changes in labour force, demographic dividend, human capital and wealth transfer. It is a critical factor in consolidating economic inequality and in obstructing social change in India (Rao and Finnoff, 2015). At the same time, its institutional character is an indicator of the continuity of patriarchal value system that dominates Indian society.

Marriage migration in India is rarely studied (Fulford, 2013) even though it constitutes a major part of migration. The significance of studying marriage migration can be observed in economic, social, cultural, political, gender and demographic terms. Social status, beliefs, customs, education, demographic factors, wealth, and income are explicitly important variables in marriage negotiations (Rao 1993; Agarwal 1994; Anderson

2003) and have made marriage migration a complex phenomenon in India. Socially and economically well-off households may have to search across a wider territory to find a spouse from an equally well-off household (Becker, 1981). Richer families are less likely to engage in marriage migration (Rosenzweig and Stark, 1989; Bhattacharya, 2000), showing the significance of economic variable in the process.

Douglas North defined social institutions as the rules of the game in a society, or, more formally, as the humanly devised constraints that shape human interactions (Faundez, 2016). As an institution, marriage is a means of creating and strengthening class and caste alliances and consolidating social and economic statuses (Bloch, Rao and Desai, 2004). Even today, most of Indian marriages are arranged by parents and relatives on class and caste lines. Generally, marriage alliances are forged within sub-castes and thus are limited to geographic distribution of caste members.

Marriage Migration in India

Marriage migration constitutes a transfer of labour from the natal to marital home (Agarwal, 1994). Since Indian society is patriarchal and follows the patrilocal practice, after marriage, the wife usually moves to the husband's house and settle down there. Thus, the process of marriage migration has greater sociological significance. Demographically, marriage migration in India leads to the redistribution of the population within the country and significantly changes the age structure at the micro-level. It is one of the reasons for imbalance in sex ratio both in the place of origin and destination. Marriage migration is both a separating and an additive process having gender dimensions. It separates women from their place of origin and adds them to the place of destination. Since women have a crucial role in education, health, and economic development (UNICEF, 2007; World Bank, 2012), their migration consequent to marriage results in the shift of their human capital as well. Though the previous studies scientifically explored the levels and patterns of marriage migration in India (Kaur, 2012; Fulford, 2015; Ghosh,

2017), little is known about changes in the pattern of marriage migration and its links with socio-demographic variables.

Using a conceptual framework, we attempted to understand a few dimensions of marriage migration in India, which will be discussed in the coming sections. In the present study, we examine the core trait of the proposed conceptual framework: the socio-economic dimensions of marriage migration in India. We restrict the scope of the present study to this framework as there is lack of data. All the matters discussed in the framework can be examined only after conducting detailed multi-dimension surveys covering all states and union territories in India. We require a few sample surveys just like National Family Health Surveyor National Sample Survey to fill the research gaps and to utilize the research framework to the fullest extent.

Under this circumstance, the present study examines the magnitude of marriage migration in India by state and union territories. It further looks into the socio-economic dimensions of marriage migrants and the strategies required for further policy formation. Gender exposition of marriage migration was also made to some extent. We have used the information from Census of India and other secondary information from the government. In short, the present study is relevant as it attempts to examine the trends and patterns, gender dimensions, the streams and the socio-demographic correlates of marriage migration in India with the available data through the perspective of institutional economics.

The two main sources of marriage migration in India are the Census of India and National Sample Surveys (NSS). Since the first Indian census of 1881 to 1961, the data on migration were obtained only by asking the question on place of birth. In 1971 census, an additional question about the place of last residence of the resident was introduced to get more information on the volume of migration. However, in 1981, 1991, 2001 and 2011 censuses, the questions on reasons for migration from place of last residence, and duration of stay at the place of enumeration were also included. The reasons for migration in 1981, 1991, 2001 and 2011 census periods are grouped as in Table 7.1

Table 7.1 Reasons for Migration of Migrants in India: Classification Codes Given in Census of India

Census 1981	Census 1991	Census 2001	Census 2011
Employment	Employment	Work/employment	Work/employment
Education	Business	Business	Business
Family moved	Education	Education	Education
Marriage	Family moved	Marriage	Marriage
Others	Marriage	Moved after birth	Moved after birth
	Natural Calamities	Moved with household	Moved with household
	Others	Any other reasons	Any other reasons

Source: Census of India

In the case of NSS, the migration data are available since the 18th round survey. After this round, 27thround (seasonal migration), 38thround (1983), 43th round (1987), 49thround (1993, how many people going out), 55thround (2000, out-migration), 64th round (2008), 66th round (employment, migration and remittance) also provide data on migration. It is possible to compute the details of migrants and their reasons for migration from some of these sources. The push factors - what makes them go out - also can be examined with these datasets. Some of the migration theories, for instance network theory, are useful in understanding marriage migration.

The present study used both quantitative and qualitative methods. Using quantitative methods, prevalence of marriage migration, correlation, and regression analyses were carried out while as a qualitative method, content analysis was performed to analyze the various reports published by the Central and State Governments and previous studies. To study the occurrence and changes of marriage migration, data from the Census was used. At first, the proportion of people migrated due to marriage was computed for the census years. The prevalence of marriage migration was computed for both males and females at the state level.

To study the streams of marriage migration, we have classified migration into four streams namely Rural-Rural, Urban-Urban, Rural-Urban, and Urban-Rural. This four-stream classification is made using the different rounds of NSS data.

To study the links between marriage migration and socio-demographic characteristics of the population, regression model was employed. The socio-economic variables taken from the National Sample Survey and Census of India were consolidated at the state level. The selection of socio-economic variables was based on the extensive review of literature available in this field. Before fitting the regression model, the multi-co linearity of variables was tested using correlation analysis. Content analysis was used for extracting information from previous studies and published reports.

Conceptualizing the Study

The conceptual framework used here to study marriage migration from an institutional economic perspective examines the socio-economic dimensions of marriage migration from the vulnerability context, interlinked with assets, institutional process and organizational structures. Also, it emphasizes the outcome and strategies associated with marriage migration. Using this framework, we reviewed the previous studies on marriage migration in India to understand the existing knowledge and the research lacuna. Towards the end, we explain the ways to fill up the existing research gaps in this pertinent research field.

Marriage migration is a complex phenomenon that needs strategies and methodologies to study it. Marriage and consequent migration are conditioned by the demographic, social, economic and cultural factors. Government policies on marriage, people's attitudes towards family formation, beliefs and customs significantly influence the prevalence of marriage migration in India.

The minimum age at marriage, as per the law, for males and females in India, are respectively 21 and 18 years. However, throughout the country, marriages below the legal age at marriage are not rare incidences. Child marriages persist

because of social customs, cultural practices and economic factors. The governments have initiated many programs to prevent child marriages. These programs have a significant impact on raising social awareness about the evil. Child marriage is particularly significant in the context of marriage migration as the minor marriage migrants are extremely vulnerable at their place of destinations.

Another institutional aspect related to marriage would be the economic liberalization and globalization that got momentum in the 1990s. Modernization of industries, technological developments etc. have opened new avenues for youngsters. Again, new technologies that facilitated online marriage sites and facebook, Whatsapp, e-mails and other internet-based media have changed the way of family formation across distant places. In the past, the distance in marriage migration was quite small (Gould 1960). Development of transportation and technological improvement helped address the issue of distance in marriage migration. Educated women now seek groom of their choices even from far distance and vice versa.

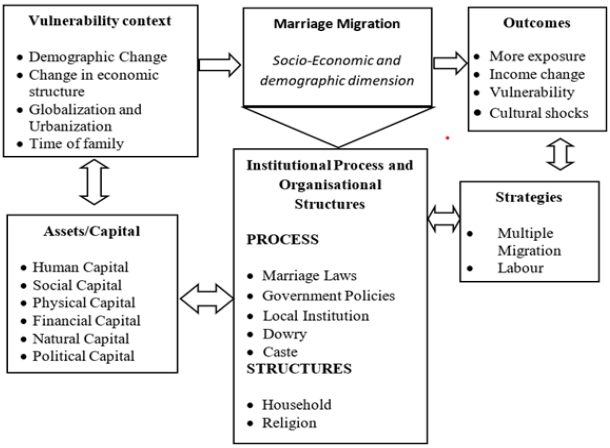
The marriages in India have many peculiarities in terms of its organization. Marriage is nearly universal. Marriages usually take place at younger ages. Match selection is mostly made by parents or other elder members of the family where caste plays a major role. Cost of the marriage of daughters is higher and considerable proportion of families finds it difficult to meet it and consequently often drown in debt. Marriage markets in India behave differently across geographies and castes.

Brides in marriage migration are vulnerable in many ways. Many of them lack natal and social support in their marital homes at destinations. This would create insecurity and overcoming it largely depends on their ability to cope up with new environment and most often many gender issues are associated with it. Meanwhile, from a political-economic perspective, marriage migration serves as a means of creating, undermining or strengthening class and or caste alliances and signaling and consolidating economic and non-economic status (Rao and Finnoff, 2015).

One of the reasons for the growing rate of marriage migration in the country is the shortage of girls at marriageable age in many places which need in-migration of brides. But this general argument was questioned by Fulford (2013), pointing out that sex ratios have become similar overtime across the districts in India. Thus, in short, the process of marriage migration in the country is very complex in terms of selection of spouse, distance moved, transfer of physical and financial assets and caste and cultural dimensions. Few theoretical frameworks are available for studying marriage migrants in India from an institutional economics perspective. In this context, we attempt to formulate a conceptual framework for studying them and also reviewed the previous studies based on this framework.

Previous studies on marriage migration were not from an institutional economic perspective and there is no framework to adopt for the present study. Therefore, we have synchronized some of the ideas and frameworks that are commonly used in institutional livelihood research. The conceptual framework is given in Figure 7.1.

Figure 7.1 Conceptual Framework for Studying Marriage Migration from an Institutional Economic Perspective



Source: Own formulation

This conceptual framework is prepared in the context of marriage migration in India. It is visualized that marriage migration is shaped by different factors particularly the opportunities and constraints that arise from the vulnerability context measured in terms of the demographic change, economic structure, integration into the urban economy, time of family formation, sex ratio, caste etc. Marriage migration is influenced by these vulnerability contexts, assets, and a range of policies, institutions and processes. Here, we term the context as 'vulnerability context' because most of the migrants are women who are forced to migrate from their native places to other places conditioned by these factors. Assets have a greater role in the marriage migration. Assets gain weight and value through policies, institutions and processes.

The elements of this conceptual framework are as follows.

Vulnerability Context: There is an external environment which people have no control over, and are forced to operate within it. These factors either positively or negatively affect the marriage migration. For instance, the changes in demographics like skewed sex ratio, the unemployment rate among youths, etc. have a significant impact on the occurrence of marriage migration.

Assets: It is very important to understand people's strength in terms of livelihood assets since these assets have a significant role in all stages of marriage migration in India. In this study, the assets are generally classified into human capital, physical capital, financial capital, natural capital, and social capital. Human capital consists of education and health of people involved in marriage. Education includes knowledge, skills and experiences.

In the case of physical capital, the indicators like transportation facility, electricity, latrine facility, well, and type of house are crucial. These factors significantly influence the marriages that are happening in rural areas. Financial capital means money, savings, loan, debt of the family and the individuals who are involved in the marriage.

Natural capital means the climatic condition, land, water and forest that have preferences in the decision making on marriages. Social capital includes social networks and involvement in various organisations including the self-help groups, religious organisation, sports community etc. The last category would be the political capital that primarily means the involvement in political decision making in the local community and governing process of local governments or higher order.

Institutional Process and Organisational Structures: Policies, institutions and processes can determine the occurrence of marriage migration and they influence the decision-making process also. In the case of institutional process, many factors, legally and informally, play in the decision-making process of marriage; the foremost being the marriage laws in the country. The Hindu Marriage Act 1955 provides for the conditions of a marriage for the Hindu, Sikhs, Jains and Buddhists in the country. This act says that both the groom and bride should not be within the degree of prohibited relationship. It also gives direction for minimum age at marriage. Besides, the Special Marriage Act, 1954 of India provides for a special form of marriage for the people of India and all Indian nationals in foreign countries irrespective of religion or faith followed by either party. The Special Marriage Act 1954 is an alternative to the Hindu marriage act 1955.

The Indian Christian Marriage Act 1872, applies to marriages of Christians. The marriages of Muslims in India are governed by the Muslim Personal Law (Shariat) Application Act, 1937. Polygamy became illegal in the country in 1956 for all citizens except for Hindus in Goa and Muslims.

Based on the marriage acts, the governments have made rules for the legal age at marriage. As per the latest rule, the minimum legal age at marriage for male and female are respectively 21 and 18 years. It means the marriages in the country can legally take place only after this age. However, in many parts of the country, still child marriages are in vogue, and state governments have made many rules to prohibit such kind of

marriages and took actions against the parents who are involved in.

Another institutional process informally involved in Indian marriages is the custom of dowry system irrespective of the religious faiths. This has made marriage migration as a movement of financial capital along with the movement of human capital. Many state-level interventions have been made in marriage in India. Marriage assistance given to brides in some states is noteworthy. Many cooperative banks provide loans for organising marriages. Local arrangements such as loan given by the neighbourhoods in Kudumbasree to members are examples of local interventions in the institutional process. However, the outcome of all these is still debatable.

There are structural changes happening consequent to marriages. Most often, partition of assets particularly gold, land, and other physical household assets takes place at the time of marriages in most of the families. This would change the structure of households of both the groom and bride. Anecdotal pieces of evidence from Kerala show that in some middle-class families when the property, the major being land,is given to daughters at the time of marriage, the parents become eligible for getting BPL card and other government assistances since they fall in distress.

Since, religion has a role in shaping the values and perceptions of the couples and thereby affecting the process of marriage migration in India, it is also included in the framework.

Strategies: It comprises the range and combination of activities and choices that people make in the process of marriage migration. For instance, a bride from rural area stays at husband's house in urban area for some time after marriage and then moves into their own house either nearby or far away. Strategies often depend on assets, status, policies, institutions and processes.

One of the reasons for vulnerability and low empowerment of women in the country is the higher occurrence of female marriage migration, consequent to which women become

deprived of social networks and access to other capitals for long that makes them more vulnerable and cause male dominance in the family. Usually, women consciously take many strategies as leaving separately from the husband family after a short period, finding jobs not nearer to their home places etc. diversification of employment, and multiple migrations are a part of the marriage migration process.

Outcomes: Outcomes are achievements or outputs of marriage migration that can be either positive or negative. For example, a woman who migrated to urban area from rural has higher chances of getting a better income, wellbeing, autonomy and livelihood outcomes. On the other hand, it is possible that a woman moving from urban to rural area may be more vulnerable in terms of restrictions movement and unemployment.

Studies so far and Lacuna

Utilizing the above discussed conceptualized framework, the study reviewed available previous studies related to marriage migration in India. Also, the available statistics on marriage migrants were examined to see what is already known and the research gaps exist from an institutional economic perspective.

Sociologists and anthropologists have extensively studied marriage in India and documented the migration of females associated with marriages. Scholars viewed marriage as a social institution where a man establishes a socially sanctioned conjugal relationship with a woman to provide legitimacy to the children born out of such a relationship (Ghosh, 2017).Diversity of unwritten rules and practices of marriage persist in various parts of the country. However, almost universal among such rules and practices was the mobility of bride to groom's family. Even though many studies are there on marriages, the issue of marriage migration did not draw the attention of sociologists and social anthropologists for detailed study until recently (Ghosh, 2017). To the best of our knowledge, no studies on marriage migration were examined from an institutional economic perspective.

In marriage migration, most of the migrants are females. In the previous studies, female migration was ignored or paid little attention as women were considered as “associational migrants” or “trailing wives”. Again, females were viewed without agency and highly dependent on their partners. Marriage migrants were seen as “wives” and never as “workers” as their economically productive roles and functions were ignored (Piper and Rice, 2003). Therefore, the issues of marriage migration in India were not considered for a detailed study in marriage research. Again in India, marriage migration is a gendered phenomenon. Since migrants, across the globe, play a crucial role in education, health and economic development, marriage migration studies require more sophisticated theoretical and analytical exploration.

When looking into the vulnerability context, it can be seen that studies examining the demographic change, economic structure, globalization, urbanization and their link with marriage migration are rare. However, there are several studies which looked into the demographic changes particularly marital status of migrants in India. Even before the 1970s, there were studies related to population composition and the characteristics of migrant population in India. Zachariah (1968) analyzed the population and marital status pattern of migrants in greater Bombay and found that for every 1000 male migrants, there were only 552 female migrants and that there had been a notable decline in the ratio of males to females (Zachariah, 1968).

A study on urban out-migration from four selected towns of Haryana and Punjab, Premi found that most of the migration was due to marriage and there was a preponderance of females among the out-migrants (Premi, 1978). Another study by Premi (1980), came with a conclusion that female migration in India might also be the result of structural changes in the marital status like broken marriages, widowhood and desertion (Premi 1980). By reviewing the literature, he concluded that rural to urban female migration in the country is largely explained by the twin factors of marriage and dependence on the bread-winner (Premi, 1980).

Studies on relationship between transfer of assets and marriage migration are also rare. Though there are a few studies on the dowry system in India (Srinivasan and Lee, 2004; Biao, 2005, Rao and Rao, 1980; Bhat and Halli, 1999), the magnitude of money, land, gold and other assets being transferred due to marriage was not looked into. Likewise, the opportunity cost of the marriage migration was not explored.

While considering the institutional and organizational structure of marriage, though studies on marriage laws, dowry prevention acts were discussed by many scholars (Uberoi, 1995; Pothen, 1989),their effects on lives of men and women in different strata were not studied well. The perceptions of different communities on these laws and the opportunities and constraints evolve from them are not addressed well.

The strategies and outcomes of marriage migration are also quite interesting. Poor members of households tend to migrate (Connell, et al., 1976). There are studies which point out that migration is emerging as a significant livelihood strategy for poor households in several regions in India (Mosse et al., 2002; Haberfeld et al., 1999; Srivastava, 1998). Marriage migration is one of the strategies for migration. The role and position of women changes in the process of migration (Roy 2003; Mukherjee 2001). However, the impact of marriage migration on women and men were not scientifically studied so far.

Thus, the socio-economic dimensions of marriage migration that touched the elements of the proposed conceptual framework are scanty. In other words, no studies were conducted from an institutional economic perspective. Therefore, there is a need to understand the magnitude of this problem and the socio-economic dimensions of marriage migration in India using the available information from Census, NSSO data, and other statistics in the country. In this context, this studyexplores the trends and spatial dimensions of marriage migration in India and the socio-economic dimensions of the problem from an institutional economic perspective.

Magnitude and Spatial Dimensions

Marriage migration in India is the largest permanent migration in the world. In this section, the magnitudes of marriage migration are described at the state and union territories using data from Census of India. The gender and spatial dimensions of marriage migration are also examined as a prelude from an institutional economic perspective. Based on Census data, we argue that there exist significant differences between males and females in the patterns of marriage migration at macro and micro levels. Marriage migration in India is not only the major chunk of migration in the country but also is one of the largest permanent migrations in the world. The patterns of marriage migration rates in North, North East, and South differ from each other with unique features. The causes of these variations were investigated based on evidence from the previous studies in the country.

Being the largest data source on migration in the country, Census has many advantages. Even though surveys like the National Sample Survey give information on marriage migration, it is not possible to use it for state-wise comparison because of the small sample size. Thus census data is the best and perhaps the only option to study the regional variations in marriage migration in India.

In many parts of the country, as a social custom, a woman usually marries a person from other villages. In some communities, it is not possible to marry a girl from their village. Once the girl marries a person from another village, the chance of her coming back to her native place for living with the spouse is rare. Therefore, marriage migration is a permanent migration as very rarely the bride goes to her own home. Except on special occasions like marriage or death of close relatives, the chance of visiting own home is rare for women; all these make marriage a cause of permanent migration of women in the country.

Another aspect is that the dowry system is widely prevalent in India. The wealth/property given as dowry and the nature of its transaction would be relevant from the institutional economic perspective. In rural households, girls are traditionally perceived

as persons who have to move out of the family via marriage. Consequently, girls are equated to flowers or trees nurtured in the garden for other people. Women are traditionally given less education and skill training compared to their male counterparts as they are expected to do the household chores at their husbands' homes for which these are not needed. This kind of attitude, arising from marriage migration has caused son preference and less respects/dignity to girls. However, with the conscious efforts from the government and other agencies, over the past few decades, education of both males and females improved and consequently, the attitudes of people also changed. Now, in many parts of the country, girls are also getting equal opportunity to learn and secure formal education including higher. In fact, in states like Kerala, education has improved women's autonomy significantly. This would also impact on the customs including marriage migration.

Transaction of wealth at the time of marriages continues in most of the societies, irrespective of caste or region. And thus in alternative economics, it continues to be a subject of study. The kind of resources transferred along with marriage widely varies across the states and regions. Even within communities, it significantly varies. For instance, among certain Christian communities, the natural resources are usually given to males and a part of financial assets is given to females. But, among certain castes among Hindus, it is on the other way. Anyway, some kinds of resources are transferred from bride to groom in majority of the instances.

In census of India, all migrants were asked about their reasons of migration that is used to understand the prevalence of marriage migration. In 2011 census, the main reasons for migration are classified into seven categories as Work/employment, Business, Education, Marriage, Moved after birth, Moved with households and Any other reasons. The prevalence rate of marriage migration is computed using this information. The rate is computed as the ratio of persons migrated due to marriage to the total migrants, expressed in percentage. The same method was used to compute the prevalence rate of marriage migration from the previous Census data.

In the Census, migration is defined in terms of the change of place of residence and thus in this analysis, marriage migration is operationally defined as the change of residence due to marriage. The objective of this chapter is to understand the magnitude, patterns and regional variation of these changes, termed as the marriage migration. This section is organized as follows. First, we examine the magnitude of marriage migration in India over the decades. It is followed by the levels and patterns of marriage migration in India and the gender dimensions of marriage migration. Besides, the regional differences in marriage migration are also examined.

The Magnitude

The number of marriage migrants reported in Census of India for the years 1991, 2001, and 2011 is given in Table 7.2. The number of marriage migrants in 1991 was 130 million that rose to 223.9 million in 2011. The exponential growth rate of marriage migrants in the last decades was 0.04 per year. Using this growth rate, we have projected the marriage migrants for the current and future years. It is estimated that around 301 million marriage migrants are in India at present, which is expected to increase to 325 million in 2021, and to 482 million in 2031. It implies that as of now, the marriage migration in the country would be one of the largest permanent migrations in the world.

Table 7.2 Number of Marriage Migrants in India, 1991-2011

Year	Males	Females	Total
1991	2564332	127736292	130300624
2001	2175827	153960696	156136523
2011	6017923	217864787	223882710
Projection			
2019	13580146	287613179	301193325
2021	16644429	308293393	324937822
2031	46035319	436255981	482291300

Note: Projection based on exponential growth model

Among the marriage migrants, females constitute the major chunk. As per Census 2011, while around 217 million women were marriage migrants, there were only 6 million men in the category. It implies that, around 97.3 percent of marriage migrants were females. This female biased pattern can be observed in the previous censuses as well. However, in 1991, though very marginal, a significant increase can be seen in the share of male marriage migrants in the country. The high proportion of females in marriage migration is due to the prevalence of patriarchy of which patri-local residence or moving of brides to their grooms' houses after marriage is a major feature.

Gender Dimensions

Early, it is seen that the magnitude of marriage migration, in the absolute terms, is increasing over the decades. Here, the share of marriage migrants to total migrants are examined in the country. Table 7.3 shows the marriage migration rates, measured as the number of marriage migrants to the total migrants, in India from 1991 to 2011. Among the total migrants, 49.5 percent are marriage migrants. Marriage migration rate is more among females than males. It has been noticed that in 2011, the marriage migration rate in India for males was only 4.3 percent while that of females was 69.7 percent. The difference in prevalence of marriage migration rate between males and females are more or less same over the observed time periods.

Table 7.3 Marriage Migration Rates in India, 1991-2011

Year	Males	Females	Total
1991	2.6	65.9	44.9
2001	2.3	69.6	49.6
2011	4.3	69.7	49.5

Note: prevalence rate for marriage migration is calculated as the number of marriage migrants divided by the total number of migrants.

Levels and Patterns

The prevalence of marriage migration significantly differs across the states and union territories. Table 7.4shows the prevalence of marriage migration in India by States and Union Territories in 2001 and 2011. As per the Census 2011, the highest level of marriage migration happens in Bihar (75.8 per cent), followed by Uttar Pradesh (66.2 per cent), Rajasthan (65.5 per cent), Jharkhand (65.1per cent), Odisha (59.8per cent), Himachal Pradesh (58.3per cent), Madhya Pradesh (58.1per cent) and Chhattisgarh (57.5per cent). The lowest levels were observed in the North Eastern and Southern States. Among the states, Misoram has the lowest level of marriage migration rate (10.4per cent) followed by Nagaland (12.9per cent), Arunachal Pradesh (18.6per cent), Goa (23.0per cent), Meghalaya (23.5per cent), Sikkim (30.3per cent), Tamil Nadu (32.2per cent) and Kerala (33.7per cent).

Table 7.4 Prevalence of Marriage Migration in India by States and Union Territories, 2001 and 2011

State	Male		Female		Total	
	2001	2011	2001	2011	2001	2011
Andhra Pradesh	1.6	4.8	52.6	60.8	30.9	41.2
Arunachal Pradesh	0.8	1.1	39.8	34.1	21.0	18.6
Assam	1.6	3.3	58.9	72.8	36.5	50.9
Bihar	0.5	10.4	48.6	87.5	20.7	75.8
Chhattisgarh	1.2	5.2	49.2	75.9	30.2	57.5
Goa	0.7	1.6	44.8	41.8	25.6	23.0
Gujarat	0.8	2.3	55.0	62.5	31.1	40.3
Haryana	1.0	2.9	68.7	71.2	46.8	50.3
Himachal Pradesh	0.7	4.0	52.5	77.2	28.6	58.3
Jammu & Kashmir	0.9	6.6	52.2	72.1	30.3	53.8
Jharkhand	1.8	6.9	64.9	81.6	40.4	65.1
Karnataka	1.3	3.7	53.0	61.4	31.1	40.4
Kerala	1.1	7.4	36.2	50.9	18.2	33.7
Madhya Pradesh	1.4	5.2	64.3	76.6	42.7	58.1
Maharashtra	1.1	2.5	53.9	57.1	32.6	34.5
Manipur	0.8	2.6	28.1	55.6	13.7	37.7
Meghalaya	4.7	26.1	39.7	20.6	23.4	23.5
Mizoram	0.3	2.8	7.5	18.0	3.8	10.4
Nagaland	2.2	1.3	78.3	25.0	60.4	12.9

NCT of Delhi	0.8	0.5	51.3	37.7	32.0	18.4
Odisha	1.0	6.2	58.8	76.7	29.7	59.8
Punjab	0.7	2.8	56.2	65.8	33.2	43.0
Rajasthan	0.7	3.2	61.1	81.6	35.8	65.5
Sikkim	1.2	1.7	42.5	53.3	22.9	30.3
Tamil Nadu	3.1	4.8	45.1	50.6	24.5	32.2
Tripura	1.2	5.7	44.6	64.7	22.7	43.9
Uttar Pradesh	0.5	6.1	51.4	81.7	24.3	66.2
Uttarakhand	0.7	1.4	54.3	64.5	30.7	42.6
West Bengal	0.9	4.0	59.4	72.9	33.3	53.0
Union Territory						
Andaman & Nicobar Islands	1.1	1.0	21.3	36.8	11.7	18.5
Chandigarh	0.4	0.4	33.0	34.6	17.5	16.3
Dadra & Nagar Haveli	4.2	1.9	65.7	47.0	45.4	22.4
Daman & Diu	0.9	0.5	55.6	33.8	30.7	11.7
Lakshadweep	1.4	1.1	29.4	2.7	12.2	1.8
Puducherry	3.6	7.3	48.5	39.1	30.8	25.0
India	2.3	4.3	69.6	69.7	49.6	49.5

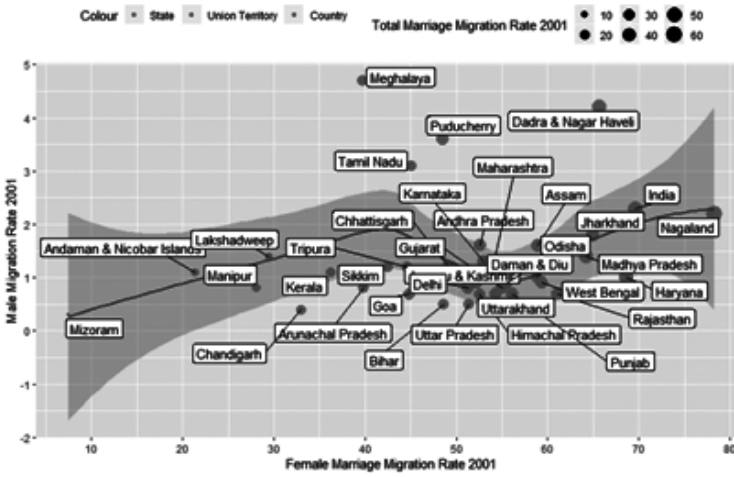
Source: Computed by the authors

The levels of marriage migration across states have changed a little in some states in the year 2011 as compared to that in 2001. However, it is widely seen that irrespective of time periods, the prevalence of marriage migration among the females is higher than that of the males. The gender differences of marriage migration are apparent across the north south regions along with the cultural differences. While the northern parts of the country largely show a centrifugal tendency with regard to marriage, the southern parts show a centripetal tendency. Perhaps, empirical evidence derived from the Census is constrained by the movements towards the states and within states, and exclusive of the international migrants which is significant in many of the states like Kerala and Punjab.

How far the states stand in terms of the male and female marriage migration in 2001 and 2011 is relevant from the gender perspective. Figure 7.2 shows the level of marriage migration of both males and females in states and union territories in 2001. Many aspects are visible in this graph. The first would be the total marriage migration in 2001 which is shown with the size of the ‘dots’ given in the graph. Another aspect that can be found in the graph is the gender discrepancy in marriage migration rates at the state and union territory level. The relationship between male marriage migration rates and female marriage

migration rates at the state level is shown by the fitted blue line given in the graph. The shadow given with the line gives the standard error of the fitted line.

Figure 7.2 Relative Position of States on The Basis of Marriage Migration Rates in India 2001



The graph clearly shows that while the majority of states and union territories have male migration rates less than 2 percent, most of the states have female migration rates, greater than 45 percent. Meghalaya stands odd with the highest level of male marriage migration rate. Most of the states are clustered towards the end of the abscissa of this graph and that shows the skewed and female biased situation of marriage migration across regions in the country.

Have the marriage migration patterns changed after a decade from 2001 in India? Figure 7.3 shows the relative position of states based on the marriage migration rates in 2011. This graph shows a relative convergence of states compared to that in 2001, even though the females continued to be the major stakeholders in marriage migration in the country irrespective of the states or union territories.

Figure 7.3 Relative Positions of States in Marriage Migration Rates in India 2011

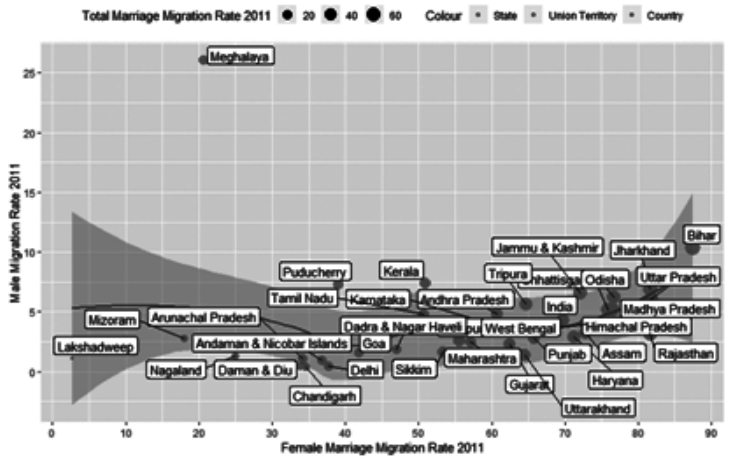
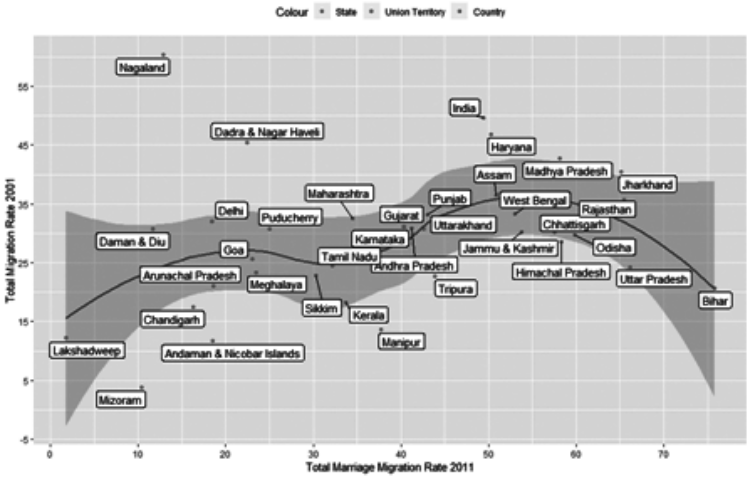


Figure 7.4 Relative Positions of States in Marriage Migration Rates in India 2001 and 2011



However, as the shifts of total marriage migration across the states over the period 2001-11 are concerned, it has been observed that most of the states have improved marginally.

Figure 7.4 depicts the relative position of states in terms of the marriage migration rates in 2001 and 2011.

Regional Variations

The levels of marriage migration are different across states, and particularly across the regions. Figure 7.5 shows the distribution of marriage migration across the states. It is clear from the figure that between 2001 and 2011, marriage migration has diverged in the country. The box plot for 2011 is much larger than that of the 2001, showing that the variation across states is widening irrespective of gender. However, the pertinent fact observed would be the wide discrepancy between the males and females in the distribution. In 2001, a few states and union territories showed extreme values for the marriage migration rate. In case of males, Meghalaya, Tamil Nadu, Puducherry and Dadra and Nagar Haveli showed the extreme values in 2001, while in case of females, Andaman and Nicobar Islands and Misoram have the extreme values in the distribution of marriage migration in India. Consistent improvement can be seen in the pattern over the period. The median values of marriage migration, irrespective of the sex, have increased as of the total. It shows that the marriage migration still is a growing phenomenon in the country.

Figure 7.5 Box plot Showing Distribution of Prevalence of Marriage Migration in India

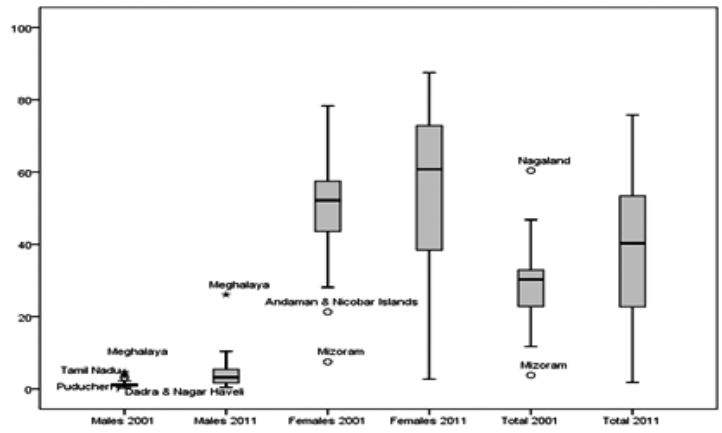


Figure 7.6 Regional Differences in Prevalence of Male Marriage Migration in India

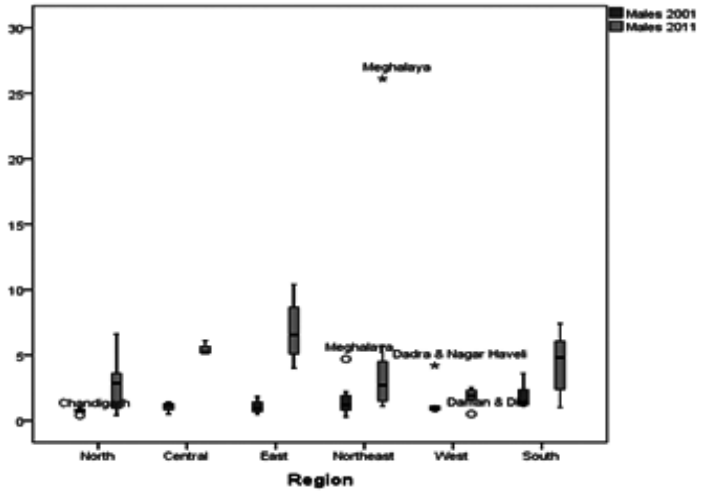


Figure 7.7 Regional Differences in Prevalence of Female Marriage Migration in India

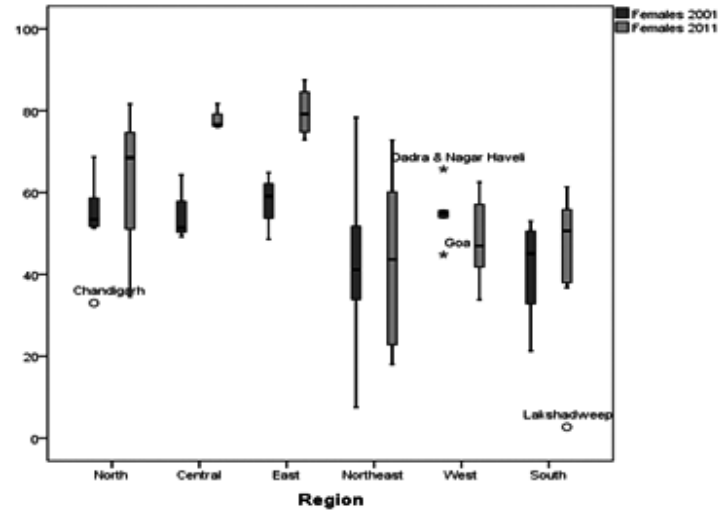


Figure 7.6 and Figure 7.7 respectively show the regional differences in the prevalence of marriage migration in India for males and females. In both the graphs, it is clear that during the period 2001 to 2011, states have diverged in the levels of marriage migration rates. This divergence is a universal phenomenon in India irrespective of gender. More empirical studies are required to understand the reasons behind this divergence across the states and union territories. Perhaps the possible reasons would be the impact of globalization and increase in international migration.

The present study, using Census data, examines the magnitude of marriage migration in India across states and genders. The conceptualization of marriage migration is based on the fact that a person is considered to be a marriage migrant if he or she changes the place of residence because of marriage alone. Census of India does not collect data on international migration. So, it is not possible to calculate the international migration due to marriage in the country. In this exercise we have confined the analysis at the state level as how many marriage migrations happen within states. So, the interpretation of marriage migration rates given here must be perceived within the purview of the operational definition of marriage migration given in the study.

However, there is no other option to study marriage migration at the state level. The available migration studies are with small sample size and most of them did not collect information on reasons for migration. So, this kind of study requires large sample survey inquiring into detailed information on cause and consequence of marriage migration. We propose that India needs large sample migration surveys like National Family Health Surveys at regular intervals to build up relevant indicators related to marriage migration particularly the aspects of human capital and social capital transactions associated with it.

It has been noticed in the analysis that marriage migration among women is relatively higher in all states. However, the issue of migration of married women has not scientifically

studied well and little attention is paid by sociologists and social anthropologists. These migrant women have a crucial role in education, health care and economic development of the family. Why marriage migration is not governed by women's agency or choice is still a question of concern. More studies are required to unravel the complex nature of marriage migration in India.

The prevalence rates in the states and union territories are diverging in 2011 from that of 2001. To find out the reasons for this divergence, more scientific empirical investigations using large sample surveys are required. It is possible that among the urban educated, marriage migration rates can have a better pace because of being better exposed to transportation, communication technology and being more mobile. The states which are in different phases of demographic transition would facilitate marriage migration differently, as families with one or two children make choices different from that with more children. This warrants more investigations from an institutional economic perspective.

Socio-Economic Dimensions of Marriage Migration

We attempt to examine the socio-economic dimensions of marriage migration from an institutional economic perspective, using data from various rounds of National Sample Survey (NSS). Since women are more involved in marriage migration, first we explore the dimensions of marriage migration among the women of working age in India. Being an important social institution, marriage migration really determines the current and future economic productivity of India. It may determine the economic activity both at the destination and place of origin. Unfortunately, this dimension has not been attracted the attention of policy regimes. Here, we argue that marriage migration in India has huge implication in the social and structural changes, both at the place of origin and destination. It is estimated that around 249 million married migrants are in the working age group, and this is expected to rise up to 264 million in 2021. The impact would be more in the rural areas since the chance of marriage migration was 3.41 times more among the rural working age women compared to that among their urban

counterparts. Education plays a crucial role than the economic aspects like the monthly per capita expenditure. The number of marriage migrants in the working age group is vital from an institutional economic perspective. We have already noticed that 97 percent of the marriage migrants are females. So, now we move on to make an exploration into the female marriage migration in India.

A few rounds of NSS surveys asked whether the current place of enumeration of each household member differs from the previous place of residence. From this question, we can understand whether the person has migrated. Those who changed the usual place of residence are considered as the migrants. In addition, each member was asked the reasons for migration. Those who responded that marriage was the reason for migration are considered for the present empirical analysis. As instructed by the NSS, appropriate sample weights were applied for all estimation.

Our main objective is to understand the socio-economic dimensions of marriage migration in India. First, we examine the prevalence rate and odds ratio of marriage prevalence in India in relation to the place of residence, monthly per capita expenditure (MPCE) and education. The analysis has been restricted to economically active population to minimize the impact of the demographic shift of the growing ageing population and young adolescents. Again, the analysis of the economically active population is more meaningful from an institutional economic perspective. Operationally, the economically active age is defined as the age group of 15-64 years.

Socio-Economic Dimension

Table 7.5 shows the prevalence rate and odds ratio of marriage migration among working age women in India. This empirical analysis is based on the National Sample Survey conducted in the years 1983, 1987-88, 1999-2000 and 2007-08.As per the latest NSSO survey (2007-08) on migration, around 71 percent of the married working aged women are marriage migrants. The share of marriage migrants consistently increased since 1983 (55 percent), to 61 percent in 1987-88 and to 65 percent in 1999-

2000. If this pattern of increase continued in the subsequent years, it could be estimated, using a linear regression model, as 77.1 percent in 2019.

The prevalence rate of marriage migration among the working age women significantly differs between rural and urban India. In fact, the gap between rural and urban rates is consistently widening over the survey periods, implying the divergence in the levels of female marriage migration in the country. In 1983, only around 39 percent of the married working age group women were marriage migrants in urban areas, whereas in rural areas it was 57 percent. Compared to the urban working age women, rural working age women are 2.07 times more likely to be in marriage migration. It implies that women in rural areas are more exposed to marriage migration. This rural urban discrepancy is widening over the years. In the 1987-88 survey, working age women in rural areas are 2.36 times more likely to be in marriage migration, compared to those in the urban areas. Odd ratio of this rose to 2.76 in the year 1999-2000 and again to 3.41 in 2007-08.

Table 7.5 Prevalence Rate and Odds Ratio of Marriage Migration among Working Age Women in India, 1983 to 2008

	1983		1987-88		1999-00		2007-08	
Indicator	**%**	**Odds Ratio**	**%**	**Odds Ratio**	**%**	**Odds Ratio**	**%**	**Odds Ratio**
India	55	-	61	-	65	-	71	-
Place of Residence								
Rural	57	2.07	65	2.36	71	2.76	78	3.41
Urban (Ref)	39	1.00	44	1.00	47	1.00	51	1.00
MPCE Class								
Quintile1	54	1.13	62	1.13	66	1.19	75	1.62
Quintile 2	54	1.13	61	1.09	67	1.24	73	1.46
Quintile 3	53	1.08	61	1.09	67	1.24	72	1.38
Quintile 4	53	1.08	61	1.09	67	1.24	70	1.26
Quintile 5 (Ref)	51	1.00	59	1.00	62	1.00	65	1.00
Education								

Illiterate	55	2.17	64	2.67	69	2.95	77	3.09
Primary	50	1.78	56	1.91	64	2.36	70	2.15
Secondary	44	1.40	50	1.50	58	1.83	66	1.79
High School & above (Ref)	36	1.00	40	1.00	43	1.00	52	1.00

Source: Calculated from various NSSO rounds

Another aspect is the socio-economic status of working aged married women in India. To understand the economic status of their family, we have taken monthly per capita expenditure, which is classified into five quintiles. It has been noticed that women in lower quintile are more likely to be in marriage migration, compared to the higher quintile groups. In 1983, the difference between the higher and lower quintile groups was relatively less, but later it increased, and in 2007-08 survey, the gap got widened. In 1983, the odds ratio for quintile1 was 1.13 in reference to quintile 4. In 2007-08, the odds ratio for the first quintile was 1.62 showing a wider gap between the lowest and highest quintile groups.

Education is an important human asset that has significant impact on marriage migration and its future implication. In the NSS data, women education is classified into four categories as illiterate, primary education, secondary education and High School or above. In this analysis, women with High School or above are taken as reference category for the odds ratio analysis. As education increases, women are less likely to undergo marriage migration. Marriage migration is higher among the illiterate women, as they are 2.17 times more likely to be in marriage migration, compared to working age women with education of high school and above as per the 1983 survey. When come to the 1987-88 survey, the odds ratio has increased marginally. And, among the illiterate working age women, the chance of marriage migration is 2.67 times more, compared to the women with high school or above education. In the case of 1999-2000 and 2007-2008 surveys, the odds ratio of illiterate working age women, compared to the reference category, have been 2.95 and 3.09 respectively.

Table 7.6 Number of Marriage Migrants among Working Age Women in India, 1983 to 2021 (millions)

	1983	1987-88	1999-00	2007-08	2011	2019	2021
	Estimation				Projection		
Marriage Distance							
Same District	65	78	101	121	129	155	162
Same State, but different District	15	18	33	47	54	76	83
Different States	5	5	8	11	12	17	18
Total	85	101	142	179	196	249	264
Streams of Migration							
Rural-Rural	67	81	111	138	150	186	197
Rural-Urban	9	10	15	20	22	31	34
Urban-Urban	5	5	10	13	15	20	21
Urban-Rural	4	5	6	8	9	12	13

Source: Computed from NSSO various rounds.

The extent of prevalence of marriage migration among the working age women is quite relevant from the institutional economic perspective. And the future trends in this respect would help us make strategies required to facilitate migration in a productive way. Table 7.6 gives the estimated number of marriage migrants among the working age women in India from 1983 to 2021. The figures for the year 1983, 1987-88, 1999-2000, and 2007-2008 are estimated from the national sample surveys. Using the figures, we have estimated the future number of marriage migrants among the working age groups for the year 2011, 2019 and 2021.

In 1983, the estimated number of marriage migrants among the women of working age group in India was 85 million. It has rose to 101 million in 1987-88 and further to 142 million in 1999-2000 and 179 million in 2007-08. If this trend continued, it is expected to have reached 249 million in 2019 and 264 million

in 2021. These figures show the real magnitude of marriage migration among the working age group of women in the country. Therefore, marriage migration should be given its due share in policy formation.

In the case of streams of migration, most of the migrations were from rural-to-rural areas. In 2007-08, it was estimated that around 138 million women migrated in India. It is expected to be 186 million at present (2019). Apart from rural to rural, the most important migration stream is that from rural to urban. In the case of distance of marriage migration, most of the marriages are within the district. Around 121 million marriage migrants in working age group are in the same district in 2007-08 survey. In the same period, it was estimated that 47 million women migrated within the same state, but across different districts, while around 11 million are from different states.

Correlation of Gender Dimension

The way marriage migration is correlated with other socio-economic variables at the state level and its gender dimension are quite important aspects in the planning process. Here, we make an attempt to understand these aspects using a few pertinent variables that are highly associated with marriage migration and its effects. The analysis has been carried out at the state and union territory levels to minimize the sampling errors that possibly could come from the sample surveys. From a set of socio-economic indicators, we have selected work participation rate, unemployment rate and literacy rate as correlates for marriage migration in the country. We have selected these variables for the correlation analysis because from an institutional economic perspective, these aspects are relevant and have immense potential for the Indian economy and its structural growth.

Correlation analysis has been carried out separately for males and females. Data on marriage migration for the year 2011 was taken from Census of India 2011 figures. The other socio-economic correlates were taken from the government statistics (Govt. of India, 2018). The definitions of the variables are as follows. Work Participation Rate is defined as the percentage of total

workers to the total population. Unemployment Rate is defined as the number of persons unemployed per 100 persons in the labour force. Effective Literacy Rate is defined as the total percentage of the population of an area at a particular time aged seven year or above who can read and write with understanding. Here the denominator is the population aged seven years or more.

Table 7.7 gives the correlation matrix for female marriage migration rate with female work participation rate, female unemployment rate and female effective literacy rate in the country by states and union territories. Among the selected variables, effective literacy rate has negative correlation with female marriage migration. The correlation coefficient (-0.694) was found to be statistically significant at the 0.01 level. Work participation rate and unemployment rate among women have no significant correlation with female marriage migration at the state level.

Table 7.8 shows the correlation coefficient between male marriage migration with male work participation rate, male unemployment rate, and male effective literacy rate at the state and union territory levels. Male marriage migration has negative correlation with male work participation rate (-0.386) and male effective literacy rate (-0.383). These correlation coefficients were found statistically significant. Male marriage migration has no correlation with unemployment rate in India.

Table 7.7 Correlation Matrix for Female Marriage Migration Rate with Other Indicators

		Marriage Migration Rate	Work participation rate	Unemployment rate	Effective Literacy Rate
Marriage Migration Rate	Pearson Correlation	1	0.095	0.011	-0.694**
	Sig. (2-tailed)		0.587	0.952	0.000
	N	35	35	35	35
Work Participation Rate	Pearson Correlation	0.095	1	-0.310	-0.228
	Sig. (2-tailed)	0.587		0.070	0.187
	N	35	35	35	35

Unemployment Rate	Pearson Correlation	0.011	-0.310	1	0.294
	Sig. (2-tailed)	0.952	0.070		0.086
	N	35	35	35	35
Effective Literacy Rate	Pearson Correlation	-0.694**	-0.228	0.294	1
	Sig. (2-tailed)	0.000	0.187	0.086	
	N	35	35	35	35

Source: Computed

***. Correlation is significant at the 0.01 level (2-tailed).*

Table 7.8 Correlation Matrix for Male Marriage Migration Rate with other Indicators

		Marriage Migration Rate	Work participa-tion rate	Unemploy ment rate	Effective Literacy Rate
Marriage Migration Rate	Pearson Correlation	1	-0.386*	-0.085	-0.383*
	Sig. (2-tailed)		0.022	0.627	0.023
	N	35	35	35	35
Work Participation Rate	Pearson Correlation	-0.386*	1	-0.152	0.376*
	Sig. (2-tailed)	0.022		0.382	0.026
	N	35	35	35	35
Unemployment Rate	Pearson Correlation	-0.085	-0.152	1	0.047
	Sig. (2-tailed)	0.627	0.382		0.787
	N	35	35	35	35
Effective Literacy Rate	Pearson Correlation	-0.383*	0.376*	0.047	1
	Sig. (2-tailed)	0.023	0.026	0.787	
	N	35	35	35	35

Source: Computed

** Correlation is significant at the 0.05 level (2-tailed).*

Figure 7.8 Scatter Plot Showing Relationship between Male Marriage Migration and Male Work Participation Rate at State and Union Territory Level, India

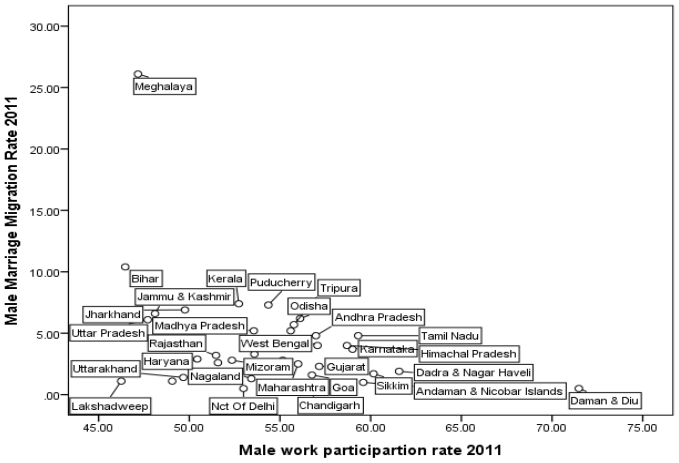


Figure 7.9 Scatter Plot Showing Relationship between Male Marriage Migration and Male Effective Literacy Rate at State and Union Territory Level, India

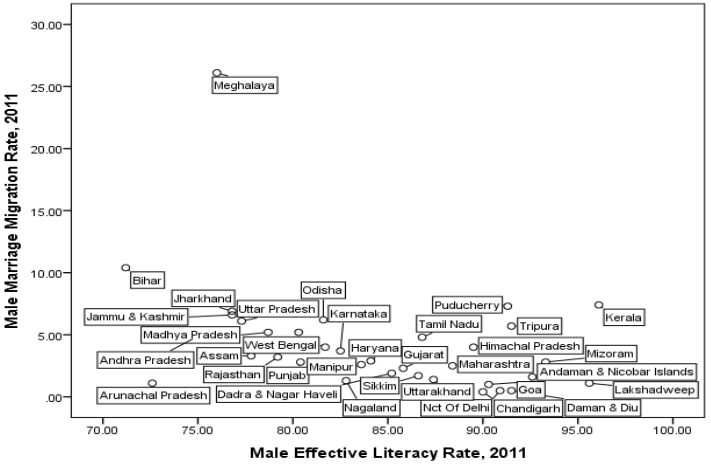


Figure 7. 10 Scatter Plot Showing Relationship between Female Marriage Migration and Female Effective Literacy Rate at State and Union Territory Level, India

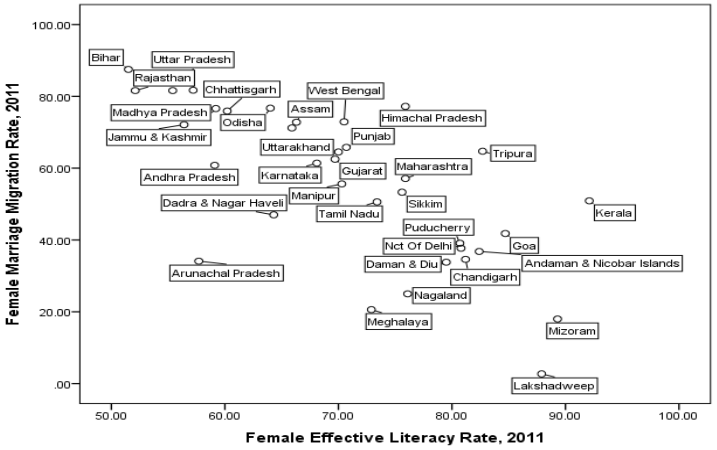
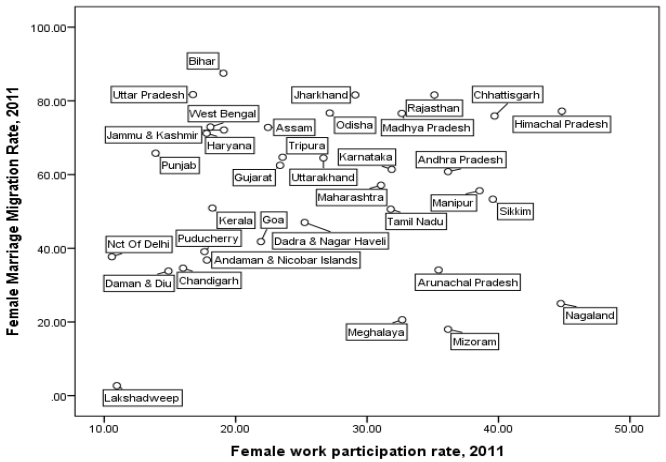


Figure 7.11 Scatter Plot Showing Relationship between Female Marriage Migration and Female Work Participation Rate at State and Union Territory Level, India



A pictorial representation of the male marriage migration rate with the statistically significant variables would be useful to understand the relative importance of the states and union territories in terms of the selected indicators used in the analysis. Figure 7.8 and Figure 7.9 respectively give the scatter plots showing the relationship of male marriage migration to male work participation rate and male effective literacy rate. States which have better position in male work participation are demographically more advanced states except Kerala. Kerala has better male effective literacy rate compared to many of the major states in India. So, what does really predict the male marriage migration rates in India at the state level? The work participation rate or effective literacy rate? Similarly, among these two variables, what does really predict the female marriage migration in India? Figure 7.10 and Figure 7.11 show the relationship of female marriage migration rate respectively to female effective literacy rate and female work participation rate. From these figures, it is not possible to understand which has more significant contribution in predicting female marriage migration. In such a situation, it would be useful to build a multiple regression model for answering the above questions.

Table 7.9 gives the results of multivariate regression model fitted for the male marriage migrants at the state and union territory levels. In the ANOVA analysis, it was found that the model statistically fits well (F=3.057, Significance=0.043). It can be seen that work participation rate, unemployment rate and effective literacy rate are negatively related to marriage migration rates in India. However, work participation rate is found to be the only statistically significant variable in the fitted model.

Table 7.9 Results of Multivariate Regression Model Fitted for Male Marriage Migrants in India, 2011

variables		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	Constant	34.642	10.164		3.408	0.002
	Male Work Participation Rate	-0.268	0.152	-0.305	-1.760	0.088
	Male Unemployment Rate	-0.294	0.396	-0.119	-0.741	0.464
	Male Effective Literacy Rate	-0.176	0.115	-0.263	-1.532	0.136
R	R-Square	0.23				

Source: Computed

We also fitted a regression model for female marriage migration and the results are given in Table 7.10. The independent variables used in the model are female work participation rate, female unemployment rate, and female effective literacy rate. The model was found statistically significant in the ANOVA analysis (F=11.784, Significance= 0.000). The model explains 53.3 percent of the variations of the independent variables. In this model, it was found that among women, work participation rate and effective literacy rate are negatively related to marriage migration. However, effective literacy rate was found statistically significant. Female unemployment rate is also found statistically significant in the model. Female unemployment and female marriage migration are positively related.

Table 7.10 Results of Multivariate Regression Model Fitted for Female Marriage Migrants in India, 2011

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	155.131	20.381		7.612	0.000
Female Work Participation Rate	-0.016	0.286	-0.007	-0.056	0.956
Female Unemployment Rate	0.655	0.373	0.233	1.754	0.089
Female Effective Literacy Rate	-1.478	0.251	-0.765	-5.885	0.000
R Square	0.533				

In short, we found that irrespective of gender, marriage migration is negatively related to work participation rate, and effective literacy rate. Unemployment rate is positively related to marriage migration in the case of females whereas it is found to have a negative relationship to male marriage migration. However, the relationship between male marriage migration and male unemployment was found statistically insignificant.

Here the socio-economic dimensions of marriage migration in India were examined from an institutional economic perspective. We gave special emphasis to females since they constitute the major chunk of marriage migration in India. Using NSS data, we explored the significance of place of residence, monthly per capita expenditure and education in relation to marriage migration of working age women in India from 1983 to 2008. It is proved that socio-economic factors significantly influence marriage migration. There exists significant difference between the marriage migrations of rural and urban women. Women in rural areas were twice more likely to undergo marriage migration compared to their urban counterparts in 1983. This likelihood of rural women increased over period of time as in 2007-08 when the odds ratio of rural women was 3.41.

Monthly per capita expenditure (MPCE) is an alternative indicator of the wealth status. Compared to place of residence and education, MPCE is found to be a relatively less significant

variable. However, over time, its significance marginally increased. For instance, the odds ratio of quintile 1 in 1983 was only 1.13 whereas in 2007-08, the corresponding value was 1.62.

The more significant among the selected variables is education. Less educated women are more likely to undergo marriage migration compared to the better educated. We found in the correlation analysis that irrespective of gender, marriage migration is negatively related to effective literacy rate.With the estimated number of marriage migrants among the working age women, we argued that the magnitude of marriage migration among them is enormous in India and has significant impact on human and economic development. It requires detailed scientific enquiry since streams of migration and distance travelled makes it more complicated. India is a complex nation with a lot of diversity. We need pertinent policy to address the issue of marriage migration because of its magnitude and implications to the country's development.

Conclusion

In India, marriage migration is complex and often works against the freedom and welfare of women. Being part of highly patriarchal social structure, it leads to wastage of human capital loss of social capital. It makes the women more vulnerable and is one of the reasons for low empowerment of women, especially in rural areas. Since girls are perceived as someone's property in future, they are deprived of proper care and education in their childhood. Instead, cost of their education and health care is perceived as mere wastage. Thus, marriage migration is acting against the agency, development and welfare of women in India. In this context, it is necessary to have a policy to address the issues of marriage migrants in India.

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8
Exploitation of In-migrant Construction Workers in Kerala: A Case Study

Anish Chandran

Migration of human beings in the world has taken place from time immemorial. From very ancient times people have moved from one place to another in search of better living. The direction of their movement has always been guided by the needs of their time. During the hunting stage when people led more or less nomadic life, migration was search for rich hunting grounds. In the pre-transitional stage of development of a country where settled living became the way of life, migratory movements assumed a definite and regular path and migration was from one area to another in search of rich pastures and fertile land for cultivation. With the introduction of modern transportation and communication, the movements of people were directed from rural to urban areas in search for better living conditions.

Migration is a process through which people move from one place of residence to another. Movements of individual imply an element of disassociation from the usual and familiar world. Besides, it leads to an involvement with a new environment, a new context of physical space and social relations. Migrants may be known to the new environment or totally unfamiliar with the place. The United Nations defines Migration as movement of a person or a group of persons either across on international border or within a State. It includes migration of refugees, displaced persons, economic migrations and persons moving for other purpose including family reunification. Migrant workers include any people working outside of their home country.

The characteristic feature of labour in India is its migratory character. Therefore, migration of labour assumes great significance in the Indian economy. Migration is a result of

unequal development which resulted in the movement from backward regions to developed regions. In India migrants are mostly from remote villages, often are less educated and cautious about different preventive measures. Most of them are inter-State migrants and has poor language skills that prevent them from understanding the safety precautions given and to voice the problem.

Better education and high literacy has prompted Keralites to look for skilled labour and higher wages abroad which are sometimes considered more respectable. This has led to a decline in the availability of workforce in Kerala especially in unskilled jobs. Traditionally, the largest number of migrant workers in Kerala used to come from Tamil Nadu. But as on 2015, 75% of the in-migrant workers are from five States namely West Bengal, Bihar, Assam, Uttar Pradesh and Odisha and about 60% of them working in construction sector. There are over 4 million domestic migrant labourers in Kerala from other States of India, as well as from Bangladesh and Nepal (GIFT, 2013). Majority of these in-migrant workers are employed in the construction sector. The construction work is hard physical labour often under difficult conditions like adverse weather, low pay and poor living conditions with lack of basic amenities and separation from family. Lack of job security and lack of access to occupational health service make the situations of in-migrants more worse.

Statement of the Problem

The characteristics of the construction industry and employment of the labour on causal basis are the important reasons for the absence of collective bargaining in the industry. Migration deals with the exploitation of the in-migrant workers specially the poor, illiterate, unskilled categories. Globalization breeds competition and sophistication in construction industry. In spite of all technological advancement workers have to work at less remunerative pay, particularly when they are unskilled. The profit motive technologies and investment in construction sector neglect priority of the working class. The contractors are not concerned about any welfare measures for workers, health

issues and working conditions. Migrant labourers are usually employed in dangerous, dirty and degrading jobs. These are jobs which the local population of the developed State would not take up. These jobs are invariably associated with more occupational hazards than other jobs. They commonly suffer from falls, injuries caused by machines, amputations and crush injuries.

Theories concerning migration flow and other process appeared first of all in the 19th century. Thomas Robert Malthus (1766-1884), William Farr (1807-83) and Ernest George Ravenstein (1834-1913) were three eminent scholars of the population, who made important contributions to the population theory and analysis. The neo classical dual models of Lewis [1934] and Fei & Ranis (1961) provide a comprehensive theoretical explanation of migration. Michael P Todaro in the late 1960's developed a theory in which migration is determined more by rural urban differences in expected earnings rather than actual earnings. Classical and neo classical models are based on income maximization strategy; the new economics of migration seeks to explain it in terms of risk minimizing strategy. The new economics of migration has emerged to challenge many of the assumptions and conclusions of neo-classical theory. Strak, Bloom, Katz, Levhari and Taylor are the main exponents of new migration theory. The new theory stated that families or other culturally defined units of production and consumption are the appropriate units of analysis for migration research, not the autonomous individual. A key insight of this new approach is that migration decisions are not made by isolated individual factors, but by larger units of related people- typically families or households in which people act collectively not only to maximize expected income but also to minimize the risk and to loosen the constraints associated with variety of market failures, apart from those in the labour market. There were several studies carried out in India and Kerala State analyzed the rural-urban migration, pull and push factors in migration. But only few studies analyzed the problems of in-migrants and critical evaluation of State's role in protecting in-migrant workers.

Keeping in view the research gaps, the present study examined these issues in details with the specific objectivities

Objectives of the Study

 To analyze the socio-economic background of the in-migrant workers.

 To study the wages and working conditions of the in-migrant workers.

 To analyze the effectiveness of government measures for protecting the rights of in-migrant workers in Kerala.

Methodology

In-migrant workers in the construction sectors of Kerala are facing wide ranges of problems. The study examined only a few dimensions of vulnerability of in-migrant workers who have come from different States in India. Both primary and secondary data were used for the study. Major part of the study was carried out by field survey with the help of structured interview schedule. Construction work is regularly mentioned as one of the most common occupations for rural to urban migrants (ILO, 2001). The latest estimate shows that there are about 4 lakhs migrant workers in Thiruvananthapuram district. The district is composed of six Taluks. The concentration of in-migrant workers is highest in Thiruvananthapuram Taluk, so the researcher selected Thiruvananthapuram taluk as the study area. Samples of 120 workers were selected from six construction site in Thiruvananthapuram taluk conveniently. The researcher also interviewed officials of State Labour Department, Local workers, contractors, elected representatives, trade union leaders and representatives of civil society organizations working among in-migrant workers. The secondary data source includes Government reports, research papers, survey reports etc. Simple statistical tools were used for the study.

Significance of the Study

Kerala State is known for out-migration and at present she is experiencing large number of in-migration. Kerala's key

attraction as a destination of domestic migrant labourers is the high wage levels in the State as compared to other States. In spite of having higher wages the in-migrant workers are facing wide variety of problems. The central as well as State government formulated and passed several laws and policies for the welfare of in-migrant workers. The question arises is that whether these policies of government help in increasing welfare of the workers? ; If not, what are the factors responsible for hindering the implementation of government policies and laws? Kerala State needs to do something for the welfare of these in-migrant workers as they contribute greatly to States growth. No serious studies have been made in this area. It is in this context the present study examined these issues related to in-migrant workers.

Construction Sector and In-Migration in Kerala

The construction industry forms an integral part of the Indian economy and a conduit for a substantial part of its development investment, is poised for growth on account of industrialization, urbanization, economic development and people's rising expectations for improved quality of living. The sector is labor-intensive and, including indirect jobs, provides employment to millions of people. The Indian construction industry has been playing a vital role in overall economic development of the country. The construction sector is also the second largest employer in the country following agriculture. The industry comprises of highly specified tasks, and for each task and stage, a different contractor is engaged and under each contractor different labourers are working. All construction labourers are causal workers. Unskilled labour is unaware of his principal employer as there is a chain of contractors between principal employer and unskilled labourers. No time limit is fixed to make payment to labourers in this industry. Some amount is paid in advance, which is very meager to meet their consumption needs and later on even though the wages are due, it is paid only if the labour contractor is economically sound. This mechanism assures the supply of labour for the contractor to complete his work. There have been many complaints of the nonpayment of

wages, poor working conditions and lack of precautionary measures at the work sites.

Construction Sector in Kerala

The construction activity is included in the secondary sector. Within the secondary sector, construction maintained a reasonably high growth rate. In Kerala, with the spectacular development of service sector, the demand for construction activities, both residential as well as commercial, have gone up in the recent years. The relatively faster pace of urbanization in the State also contributes to this. As per 2011 census, the decadal percentage of urban population has increased from 29.96 in 2001 to 47.72 in 2011 which is higher than the national average of 31.16. Several areas of the States including the capital city Thiruvananthapuram are witnessing considerable real estate development, with a spurt in the construction of high rises. In a land scarce State like Kerala, the ever increasing demand for residential and commercial places would mean more vertical development in the future which underscores the importance of a technologically advanced, sophisticated and efficient urban construction sector in the State (P. Nimmi, 2014) . Construction was a high growth sector till recently but has not shown much growth during the last three years. Along the construction, mining and quarrying has also taken a hit reporting growth rates of -16 and -21 percent in 2012-13 and 2013-2014. There was slight reversal in the fortunes of quarrying in 2014-15 but it was not adequate to compensate the large declines of the previous two years. It may be recalled that the analysis of growth drivers by the Kerala Perspective Plan 2030 had identified construction as one of the drivers. It was stated that the period beyond 2001 saw construction, transport, storage and communication, trade, hotel and restaurant, real estate ownership, business and legal services boosting growth**.**

Employment Opportunities and In-Migration in Kerala

Kerala's labour economy is a paradox. Though it has one of the highest rates of unemployed in the country, Kerala is home to 4 million domestic migrants. According to the Kerala Migration

Survey 2014 released by Centre for Development Studies showed that in the fiscal year 2014 migrants remitted 17,000 crores to their native places. In the same year nonresident Keralites sent back home 72,000 crores. Earlier the migration was primarily from the neighboring States of Tamil Nadu, Karnataka and Andhra Pradesh. The survey conducted by the NSSO in 2009 shows that the number of migrant labourers in Kerala is above 10 lakhs. Corresponding to 100 households in Kerala there were 11.9 out migrants, 655 return emigrants and 18.4 Inter-State migrants.

The scenario of migration, both out-migration and in-migration observed in Kerala is something unique and stands apart from the all India pattern. In-migration with its significant impact on various spheres of life is relatively new experience in the long history of Kerala which was otherwise considered as a region dominating in out-migration. In-migration of workers into a predominantly migrating society raises a number of issues that call for in-depth research and analysis. The educated people of Kerala only wants a white collar job at home and the unskilled and semiskilled people have migrated abroad. The migration of workers from Kerala to the Gulf States began in the 1970's. The Kerala Migration Survey-2014 has found that flow of people to abroad still continues mainly because of the State's inability to provide suitable jobs for the increasing number of educated youths and the glamour associated with Gulf emigration was still strong among the State's youth. The study conducted by Profs

K C Zachariah and S Irudaya Rajan of the Research Unit on International Migration at the Centre for Development Studies (CDS), Thiruvananthapuram Stated that Kerala is not able to create enough jobs suitable for an increasingly larger number of youngsters with a secondary or higher level of education. As long as the employment conditions in Kerala (among the educated youths) do not improve, more of the Kerala youngsters could be expected to try their luck abroad. The glamour associated with Gulf emigration is still very strong among the Kerala youngsters. This is an important positive factor in their decision to emigrate instead of working in the State.

As compared with other parts of the country, reported wage rate of workers in both agriculture and non-agriculture sector of Kerala are higher. Average daily wage rate of agriculture and non-agricultural workers in India published by Labour Bureau, Government of India shows that for males, general agricultural workers in rural Kerala it is 590 rupees (as on June 2015). The national average is only 232 rupees (Economic Review, 2015, Government of Kerala). Even though labour in Kerala is more illiterate, the Labour Force Participation Rate (LFPR) and Workers Population Ratio (WPR) for the persons of age group of above 15 are below the national average and this has been a persistent characteristic of the Kerala Labour Market. The 4th Round of Report on Employment Survey 2013-14, Labour Bureau, Ministry of Labour and Employment and Government of India shows that LFPR in Kerala is 49.7% while it is 52.25 for country as a whole. In rural Kerala LFPR is 50.6% which is lowest among Indian States. However in urban Kerala, it is 47.7% which is equal or slightly to higher than national average of 47.2%. for Worker Population Ratio, the national average is 49.9% while it is 43.8% in Kerala. This gap is attributes by the low level of rural WPR of 44.6% which is 16 % lower than the national average. (Ibid)

There are over 2.5 million domestic workers in Kerala from other States as well as from Bangladesh and Nepal. In 2016 this figure stood over 4 million with an annual arrival rate of 2.35 lakhs. The number of migrant workers in Kerala is much larger compared to only 1.6 million Keralites working outside India. Besides, within 10 years, the majority of the local population would have aged above 40 years and this could lead to a further increase of migration from other States. (GIFT,2016)

Table 8.1Estimates of District Wise In-migrants Population

District	In-migrants Population (2016)
Ernakulam	800,000
Thiruvananthapuram	400,000
Palakkad	400,000
Kozhikode	400,000
Thrissur	250,000
Kannur	250,000
Malappuram	250,000
Kollam	250,000
Others	150,000
Total (Kerala State)	4,000,000

Source: GIFT, Survey Estimates, 2016

According to the census 2011 report, Kerala State's population is about 33.4 million. Of this 8.7 million are male in the age group 20-64 years. The fact is that only half of them are in the local work force. Migrants now outnumbered local workers in many professions and have totally replaced them in manual jobs and the manufacturing sector in the Kerala. Within 10 years the majority of the local population will be in the age group above 40. It would open doors for more migration. (GIFT, 2016)

One of the main problems is that only a minute percentage of total in-migrants are registered under Construction Workers Welfare Fund Board. The Gulati study showed that in 2013 there were 25 lakhs in-migrant workers in Kerala from outside State. But the data of Construction Workers Welfare Fund Board revealed that only 33765 in-migrants were registered under the Construction Workers Welfare Fund Board all over Kerala. It means that only minute percent of the in-migrants were registered under Construction Workers Welfare Fund Board. This shows the failure of Government departments to incorporate the in-migrants in the welfare schemes.

Socio-Economic Background and Living Conditions of the Migrant Workers

A relatively younger bunch of unskilled and semi-skilled in-migrant workers are the main characteristics of the in-migration in Kerala. About 74% of the in-migrants are in between the age group 18 to 33. Only 3% of the in-migrants are in the age group above 50. About 93% of the sample respondents are male migrants.

Table 8.2 Gender Wise Classifications of Migrant Workers

Category	No. of In-migrants	Percent
Male	111	92.5
Female	09	7.5
Total	120	100

Source: Primary Data, 2016

Table 8.3 Age Wise Distribution of Migrant Workers

Age group	No. of In-migrants	Percent
Less than 18 years	5	4.16
18-25 years	45	37.5
26-33 years	44	36.67
34-41 years	14	11.67
42-49 years	08	6.67
50 years and above	04	3.3
Total	120	100

Source: Primary Data 2016

The study shows that most of the in-migrant workers are from three States namely West Bengal (33%), Odisha (19%) and Assam (16%). They together constitute 69% of the sample. Migrants from Tamil Nadu constitute 9 percent of the total sample migrants and migrants from UP, Bihar and North East

States are only less than 9 percent. About 64% of the in-migrants survived are unmarried.

Table 8.4 State of Origin

Native State	No. of In-migrants	Percent
West Bengal	40	33.33
Odisha	23	19.17
Assam	19	15.83
Tamil Nadu	11	9.17
Jharkhand	10	8.33
Uttar Pradesh	08	6.67
Bihar	06	5
North East States	3	2.5
Total	120	100

Source: Primary Data, 2016

Source of Information Regarding Migration to Kerala

Migrant workers get the information about availability or prospects of availability of work at destination from different sources. There has been enough literature to show that earlier middlemen or contractor used to be an important source of information for migrant workers.

However in recent times their role of middlemen has replaced by other sources, their role has been minimized largely because of increasing awareness among migrating workers. The study revealed that 55% of the in-migrants got the information about the employment opportunities in Kerala through their friends who already migrated to Kerala, 23% from relatives and only 15 % from contractors and middlemen's.

Table 8.5 Source of Information Regarding Migration to Kerala

Source of information	No. of Inmigrants	Percent
Middle men's/ contractors	18	15
Friends	66	55
Relatives	28	23.33
Others	8	6.67
Total	120	100

Source: Primary Data, 2016

Religious and Caste Composition of Sample Migrants

The study shows that majority (77%) of the respondents belongs to Hindu religion. Around 16 percent of total respondents are from Islam religion followed by Christian religion (4.16%) and others around 2%. Most of the migrants belong to other backward class. Around 29 per cent belongs to SC/ST category. It is also worth to note that 16 per cent of the migrants comes from forward community.

Educational Status

Table 8.6 Educational Level of Sample Migrant

Schooling level	No. of In-migrants	Percent
No schooling (illiterate)	34	28.33
Primary schooling	58	48.33
High school	25	20.84
Higher Secondary education	3	2.5
Total	120	100

Source: Primary Data, 2016

Table 10.6 gives a shocking fact that 28 Percent of the migrant workers are illiterate. 48 percent of the workers have only primary education. 21 percent of the migrant workers have high school education and no one have educational qualification above higher secondary.

Motivational Factors of In-migration

Table 8.7 Motivational Factors of In-migration

Reasons	No. of In-migrants	Percent
Employment	63	52.5
Repayment of debt	33	27.5
Construction of house/purchase of land	7	5.83
Financing household expenditure	17	14.16
Total	120	100

Source: Primary Data, 2016

Respondent were asked to identify for the reason for migration, the order of preference were better employment opportunities (53%), repayment of debt (28%), financing household expenditure (15%) and for the construction of house/purchase of land (6%).

Family Size

Table 8.8 Family Sizes of Sample Migrants

Category	No. of In-migrants	Percent
Up to 2 members	6	5
2-4	33	27.5
4-6	41	34.17
6-8	24	20
Above 8 members	16	13.33
Total	120	100

Source: Primary Data, 2016

Table 10.8 shows that 27.5 percent of the migrant worker's family consisting 2-4 members. It is also worth to note that around 13 percent of the migrant workers have the family sizing above 8 members.

Previous Occupation in the native States

Table 8.9 Previous Occupations in the Native States

Category	No. of In-migrants	Percent
Agricultural worker	38	31.17
Industrial work	11	9.17
Casual work	22	18.33
Self employed	08	6.67
Unemployed	32	26.67
Others	9	7.50
Total	120	100

Source: Primary Data, 2016

The Table 10.9 shows that most of the respondents engaged in various occupations in their native States before migrating to Kerala. Among them 31 percent of workers engaged in agri-cultural activities and around 18 percent of workers did casual work. Around 27 percent of the workers had no employment in their native place. Others includes students, petty trader etc.

Indebtedness among Respondents

Table 8.10 Indebtedness Among Respondents

Category	No. of In-migrants	Percent
Respondents having debt	107	89.17
Respondents having no debt	13	10.83
Total	120	100

Source: Primary Data, 2016

The study reveals that 89 % of the migrants are in the debt trap.

Living Conditions of In-Migrant Workers

Housing is the biggest problem that the in-migrant workers face in Kerala. Notwithstanding a reasonably good level of income after migration; most of the respondents are living in deplorable conditions. The study revealed that the migrant workers prefer to work with an employer who offers free residence with adequate supply of water even if they are paid a little less. But

such facilities are not offered for the in-migrant workers. The field survey showed that an overwhelming majority, 79 percent of in-migrants are living with friends and coworkers, 12% with their family and only 2 percent staying alone. About 43 percent of the respondents reside at the working sites, 56 percent reside in poor rented houses with single room shared by many. The study found that about 58 percent of in-migrants are living with 6 to 15 workers in a room, 10% are sharing a room with more than 15 workers. In most of the cases there is no provision of hygienic sanitation and safe drinking water. The shocking point is that around 53 % of the respondents argued that the irresidence is of poor quality. Only 15% argued that there is living in good quality residence.

Type of stay in Kerala

Table 8.11 Type of Stay in Kerala

Type of stay	No. of Immigrants	Percent
With family	16	13.33
Alone	2	1.67
With co-workers/friends	102	85
Total	120	100

Source: Primary Data, 2016

The study shows that most of the migrant workers (85 percent) stay with co –workers or friends. 13 percent of the workers stay with their family. Only 1.67 workers stayed alone.

Nature of Accommodation

Table 8.12 Nature of Accommodation

Category	No. of In-migrants	Percent
Rented house	61	50.83
Work site and Temporary sheds	51	42.5
Lodges and hotels	8	6.67
Total	120	100

Source: Primary Data, 2016

Table: 10.12 shows half of the sample migrants live in rented house. Around 43 percent of the in-migrants live in work site and temporary sheds themselves. Less than 7 percent of workers live in lodges or hotels.

Number of Persons per Room

Table 8.13 Number of Persons Per Room

Number of persons	No. of Immigrants	Percent
1-5	38	31.66
6-10	41	34.16
11-15	29	24.16
Above 15	12	10
Total	120	100

Source: Primary Data, 2016

Table: 8.13 reveals that around 34 percent of the workers share their room with 5 – 9 members. 32 percent workers' room consists of 1 –5 members. It is very crucial to note that around 34 percent workers room consists of more than 10 members.

Water Source

Table 8.14 Water Source of the Migrant Workers

Sources	No. of In-migrants	Percent
Well	69	57.5
Public water connections	41	34.16
Pond/river	13	10.83
Others	07	5.83

Source: Primary Data , 2016

The study shows that around 58 percent of the migrant workers depend on well for water. 34 percent depends on public tap and 11 percent of the respondents depend on ponds or river. Others includes private water connections, temporary water supply facility etc.

Type of Toilet

Table 8.15 Type of Toilet of the Migrant Workers

Toilet	No. of In-migrants	Percent
Attached	19	15.83
Common	73	60.83
Temporary	17	14.17
Others	11	9.17
Total	120	100

Source: Primary Data

Table: 8.15 show that around 61 percent of the migrant workers use common toilet. Only 16 percent of the workers use attached toilet. Others includes open defecation, public toilets etc and it contributes 9 percent.

Opinion about Residence

The study shows that only 15 percent of the respondents have the opinion that their accommodation is good. Around 52.5 percent of the respondents opined that their accommodation is poor.

Table 8.16 Opinion about Residence

Category	**No. of In-migrants**	**Percent**
Good	18	15
Average	39	32.5
Poor	63	52.5
Total	120	100

Source: Primary Data, 2016

A relatively younger bunch of semi-skilled and unskilled in-migrant workers, with diverse socio-economic background and different educational level, mostly from the States of West Bengal, Bihar, Odisha, Assam, Jharkhand and Uttar Pradesh constituted the sample immigrants in the study. The major reason for migration of these workers is the poor economic condition followed by lack of sufficient employment

opportunities and low wages in their native place; whereas availability of work and higher wages are reported as the major reasons for migration to Kerala. Informal network through friends/relatives and acquaintances who have already migrated to Kerala plays important role in migration of workers to Kerala. The living conditions of in-migrant workers in Kerala are very poor. They are living in slum like areas with little provisions for sanitation and drinking water.

Wages and Working Conditions of In-Migrant

Of all the factors which motivate one to migrate, the most important are the economic factors, because of which one leaves his original residence and migrate to another place. Migration equalizes economic opportunities. At some place there is availability of employment but lack of man power. In both condition production is adversely affected. Adverse effect is minimized by migration. Migration brings adjustments in demand and supply and assists the creation of national capital. As a result of migration balanced economic growth takes place. There will be operation of right man, right job, only by migration. Thus, migration acts as equalizer.

The difference of wages between the local and in-migrant workers has been found to be ranging between 10 to 40%. The average wages for in-migrant construction mason ranges from 600-700, but in the case of local mason its ranges from 800 to 900. The average wages for in-migrant construction helper ranges from 400 to 500 but in the case of local workers ranges from 600 to 700. The study has revealed that 12.5% migrant workers have suffered from the problem of nonpayment of their wages and or dues at the time they were to leave for their homes. The workers alleged that their employers went on delaying the payments and ultimately, they had to go without payments. The in-migrant workers have to work for longer hours. In-migrant work long hours and are dedicated and sincere; they put in long hours and are ready to do overtime. The normal working day ranges between 8 to 14 hours depending upon the sector, location and type of contract. But they are denied social security benefits. Many of the in-migrants, who

have worked outside their States of origin, have been attracted to Kerala by the higher wage level.

Present Occupation

Table 8.17 Present Occupation of Respondents

Category	No. of In-migrants	Percent
Construction mason	17	14.17
Construction helper	103	85.83
Total	120	100

Source: Primary Data , 2016

Table 8.17 shows that the present occupation of 78 percent of the migrant workers is as construction helper. 14 percent of the respondents work as contract mason. Only 5 percent of the respondents engage in casual work.

Working days Per Week

Table 8.18 Working Days per Week

Working days	No. of In-migrants	Percent
Upto 4 days	7	5.83
5 days	18	15
6 days	71	59.17
7 days	24	20
Total	120	100

Source: Primary Data , 2016

The study reveals that around 59 percent of the migrant workers work for 6 days. 20 percent of the respondents work for all days. 15 percent of respondents work for 5 days in a week.

Working Hours Per Day

Table 8.19 Working Hours per Day

Working Hours	No. of In-migrants	Percent
8 hours	19	15.83
8-10 hours	56	46.67
10 to 12 hours	36	30
Above 12 hours	09	7.5
Total	120	100

Source: Primary Data, 2016

The table 8.19 reveal that around 47 percent of the migrant workers works for 8 to 10 hours in a day. 30 percent of the respondents work for 10 to 12 hours. 16 percent of the workers work for 8 hours. It is also worth to note that 7.5 percent of the respondents workers for more than 12 hours in a day.

Wages per day

Table 8.20 Wages per Day of the Sample Migrants

Wages	Construction Helper	Contract Mason
401-500	75 (72.8%)	_
501-600	28 (27.2%)	_
601-700	_	13 (76.5%)
701-800	_	4 (23.5%)
Total	103 (100%)	17 (100%)

Source: Primary Data, 2016

The study revealed that the majority of construction helper's gets an average daily wages ranging from 400 to 500 (73%). In the- case of construction mason the majority of them are in the range between 601 rupees to 700 (76.5%). None of the construction helper gets more than 600 rupees and none of the mason gets more than 800 rupees.

Wage Per Month

Table 8.21 Wage Per Month of the Respondents

Monthly wage	No. of Immigrants	Percent
7501-10000	33	27.5
10001-15000	58	48.33
15001-20000	29	24.17
Total	120	100

Source: Primary Data, 2016

The study revealed that majority of the in-migrant workers are earning below 15000 Rs per month.

Periodicity of Receiving Wages

Table 8.22 Periodicity of Receiving Wages

Category	No. of In-migrants	Percent
Daily	17	14.17
Weekend	52	43.33
Monthly	36	30
Keeping dues / After finishing work	15	12.5
Total	120	100

Source: Primary Data , 2016

Table: 8.22 shows most of the respondents (43.33%) get wage on weekends. 30 per cent of the respondents are monthly wage earners. 14 percent of the respondents get wage in each day after work. 12.5 per cent of the respondents have to wait for finishing work they engaged in to get their wage.

Mode of Remittance to Home

Table 8.23 Mode of Remittance to Home

Category	No. of In-migrants	Percent
Own bank account	39	32.5
By hand during visit	29	29.17
Contractor	18	15
Through friends	27	22.5
Others	07	5.83
Total	120	100

Source: Primary Data , 2016

The study shows that around 33 percent of the respondents remit money through own bank account, 29% by hand during visit and 22.5% respondents remit money to their home through friends. Others includes through post office, money order etc.

Possession of Bank Account

Most of the in-migrant workers remain an unbanked population. Only 32.5% of the respondents are having bank accounts. Because of the absence of proof of residence and identity, in-migrants are unable to open bank accounts. In the absence of bank accounts, they are depending heavily on informal ways to send money to home.

Table 8.24 Possession of Bank Account

Category	No. of In-migrants	Percent
Respondents having a bank account	39	32.5
Respondents not having a bank account	81	67.5
Total	120	100

Source: Primary Data, 2016

Monthly Expenditure

Table 8.25 Monthly Expenditure of the Respondents

Monthly Expenditure	No. of In-migrants	Percent
Below 2500	19	15.83
2501-5000	61	50.83
5001-7500	16	13.33
7501-10000	13	10.83
Above 10000	4	3.33
Not answered	7	5.83
Total	120	100

Source: Primary Data , 2016

The study revealed that around 67 percent of the respondents have the monthly expenditure below 5000 rupees. 13 percent respondent's monthly expenditure is between 5001 and 7500. 14% respondents have monthly expenditure above 7501 rupees**.** Those having high expenditure category is those staying with their family.

Working Conditions

In construction sites in-migrants work for nine to twelve hours a day. The study reveals that a majority of the respondents (84 %) opined that they are working under extreme conditions like physical strain, hot climate, high sound and dust etc. In-migrant are at a significant disadvantage in the community into which they have migrated. They are in unfamiliar place. They are also not familiar with the culture and language of the new place. The local peoples are not willing to interact with these in-migrant workers and viewing the entire migrant workers with suspicion has badly shaken their confidence. The study shows that 66 percent of the respondents opined that they are facing discrimination from local workers and local people.

Table 8.26 Working Conditions of the Respondents

Category	No. of In-migrants	Percent
Respondents working under extreme condition	101	84.17
Getting safety precautions	53	44.17
Respondents get first aid	43	35.83
Respondents get fresh drinking water	58	48.33
Respondents facing discrimination from local workers and local people	79	65.83

Source: Primary Data , 2016

It has also come to light during the study that there exists an amount of discrimination with the in-migrant workers on the issues of job allotments in an establishment. In-migrant workers are offered the jobs, which the local workers normally shirk to perform. 56% of the in-migrant workers opined that there are no safety precautions at the work sites and 64 percent of inmigrants opined that there are no first aid facilities at the work sites**.** The table shows that majority of the respondents (52%) are not getting fresh drinking water.

Physical and Mental Harassment at the Work Site

Table 8.27 Physical and Mental Harassment at the Work site

Category	**No. of In-migrants**	**Percent**
Respondents facing physical and mental torture	69	57.5
Respondents not facing physical and mental torture	51	42.5
Total	120	100

Source: Primary data, 2016

The Table: 8.27 show that 57.5 percent of the respondents have to face physical and mental torture at their worksite.

Table 8.28 Opinion of Respondents About Mental and Physical Harassments

Category	No. of In-migrants	Percent
Contractors and supervisors	51	73.91
Co-In-migrant workers	3	4.34
Local workers	15	21.74
Total	69	100

Source: Primary Data, 2016

The study shows that around 74% of the workers facing harassment from contractors and supervisors. 21% of the respondents argued that they are facing harassment from local workers and 4 % from other in-migrant workers.

Opinion about working conditions

Table 8.29 Opinion of Respondents about Working Conditions

Category	No. of In-migrants	Percent
Good	23	19.17
Average	41	34.17
Poor	56	46.67
Total	120	100

Source: Primary Data, 2016

The table 8.29 shows that only 19 percent of the respondents have the opinion that their working condition is good. Around 47 percent of the respondents opined that their working condition is poor. There exists an amount of discrimination with the in-migrant labour on the issues of job allotments in an establishment. Dual system of wages exists in the construction sector in Kerala. Generally local workers put in work fewer hours than migrant workers, but they are paid higher wages than migrant workers. In-migrant workers are offered the jobs, which the local workers normally shirk to perform. Workers are subject to exploitation directly and indirectly by the contractors by reducing their wages, lengthening of working time, reducing

rest time etc. The in-migrant workers have to work for longer hours. The normal working day ranges between 8 to 12 hours depending upon the sector, location and type of contract. But they are denied social security benefits. Working condition in the most of the construction sector is very poor. Basic infrastructure facilities like urinal, latrine, clock room, drinking water facilities, safety precautions etc. are denied by most sites.

Social Security and Welfare Measures for In-Migrant Workers

The Universal Declaration of Human Rights advocated for the right to social security, economic, social and cultural rights as indispensable for the individual's dignity and free development of individual's personality (Article, 22); the right to work, free choice of employment, just and favorable conditions for work, protection against unemployment, including the right to join trade union (Article 23). These rights are also emphasized in the conventions for the protection of women, children, indigenous people and the migrant workers. The workers in the informal sector including migrant labour are deprived of most of these rights. Over and above they are subjected to worst form of human rights violations. Internal migration has enormous potential to contribute to urban diversity, social cohesion and economic prosperity of India (UNESCO, 2012). The Indian constitution envisions in its preamble, an egalitarian social order in which justice, liberty, equality and fraternity are assured to every citizen to secure the dignity of person, fraternity among the citizens for unity and integration of the Union. The article 41 and 43 of Indian constitution imposes a duty on the State to make effective provision to secure the right to work, education, payment of living wages, working conditions, decent standard of living and social and cultural opportunities to the workmen. Article 23 prohibits 'Begar' and 24 prohibit employment of children below the age of 14 years in hazardous employment, mines etc.

Government's Policies and Welfare Measures for In-Migrant Workers

The concept of labour welfare has received inspiration from the concept of democracy and welfare State. The constituents of labour welfare included decent working conditions, limited working hours, safety, health insurance scheme, provident funds, pensions, rest rooms, toilet facilities, lunches, wash places, recreational facilities, entertainments, and educational help for employee's children's.

Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act (1979)

One of the most important acts for the protection of in-migrant workers is the Inter –State Migrant Workmen (Regulation of Employment and Conditions of Service) Act (1979). The Act is meant to regulate the employment of inter-State migrant workers and to provide for their conditions of service. Equality of wages between migrant labourers and others is ensured by the act. The Act ensures for displacement allowance equivalent to half month wages. The Act provides for journey allowance to meet travel expense from place of work to place of residence. The Act States that it shall be the duty of every contractor to "provide and maintain suitable residential accommodation". The contractor should ensure suitable conditions of work. In case of fatal accident or serious bodily injury to workers, the contractor has to intimate the specified authorities of both the host State and State of origin and also the next of-kin of the workers. The licensing and registering by a notified registering authority is ensured by the act. The contractor is entrusted to issue a passbook to every worker, giving details about the workers, including payments and advances.

All the laws Stated below are applicable to both local workers and in-migrant workers. Such laws include:

- Workmen's Compensation Act, 1923 – the Act ensures compensation for workers in case of industrial accidents or occupational diseases.

- Payment of Wages Act, 1936 – it ensure prompt and regular payment of wages and to prevent the exploitation of wage earner.
- Factories Act, 1948 – it promote welfare and health of labourers employed in factories using power and employing 10 or more labourers.
- Minimum Wages Act, 1948 – is to promote the minimum wages in industry and trade where labour organizations are ineffective and non-existent.
- Contract Labour (Regulation and Abolition) Act, 1970 – this act is applicable to every establishment in which 20 or more workers are employed. The Act stated that there should be provisions for sufficient supply of drinking water, urinals and latrines and first aid facilities.
- Equal Remuneration Act, 1976 – this Act ensures equal payment to men and women for same or similar nature of work.
- Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act 1996 – The act is meant for regulation of employment and conditions of service of the building and other construction workers as also their safety, health and welfare measures in the establishments employing ten or more building workers.
- Migrant Suraksha Project, 2009- Migrant Suraksha Project is being implemented across the State under the aegis of the Kerala State Aids Control Society among migrant labourers since 2009 mainly to detect HIV+ cases among them and to create awareness and health cards also have been issued to the labourers.
- Inter State Migrant Workers Welfare Scheme, 2010- Kerala government introduced “Inter State Migrant Workers Welfare Scheme” in 2010. Under this scheme, migrant workers by paying an annual contribution of 30 Rupees are eligible for benefits like health care assistance, retirement benefits and educational assistance to their children. Actually

most of the other State migrants are unaware of the scheme. This scheme is implemented by Kerala construction worker board. The study revealed that even though majority of migrants are employed in construction sector, workers are not getting any benefits

The study revealed that none of the in-migrants have membership in any trade union in Kerala. Majority argued that the local peoples see the in-migrants with greater degree of suspicion. The study also revealed that 71 percent of the respondents did not register under welfare Fund Board and only 32 percent of respondents registered in any type of insurance schemes in Kerala.

Table 8.30 Availability of Welfare Schemes

Category	No. of In-migrants	Percent
In-migrants registered under Welfare Board of Kerala government	34	28.33
In-migrants registered under Insurance scheme	38	31.67
In-migrants participated in Medical Camp	44	36.67

Source: Primary Data, 2016

In-migrant workers are working under extreme conditions. The workers are living in crowded rooms with little space to move. Life is not easy for the in-migrants most living in groups sharing a single room with little toilet facilities. Because of this, they are vulnerable to communicable and occupational diseases. The study found that only 37% of the in-migrants were participated in any medical camps. In-migrant workers in Kerala are not getting any benefits from Health insurance scheme. The contractors are not providing any medical care for the workers. Accidents and deaths at work places are also common in the construction sector, which is aggravated by the absence of any kind of social protection.

The conditions of work in the construction industry are harsh. The construction industry runs on contract basis, though there is a high demand of labour of all kinds of work. No rules and regulations pertaining to employment are being implemented and labour laws seem to be violated in this industry. In this industry one does not find labourers permanently working under one contractor, thereby meaning that a permanent employer-employee relationship is not established and so benefits under social service welfare legislation are not available to these labourers. As the construction workers are a shifting and floating population, they work under unclear employer-employee relationship. None the basic labour laws like Minimum Wages Act, Equal Remuneration Act and Inter-State Migrant Labour Act are implemented. This means that construction workers who provided housing and infrastructure for the whole nation, are to a large extend houseless themselves and never sure of tomorrow. Some labour laws are enacted to protect construction labour such as the, Minimum Wages Act, Equal Remuneration Act, Inter-State Migrant Labour Act, Industrial Labour Disputes Act and Workmen Compensation Act, but none of them are properly implemented. Social security laws such as the ESI Act, EPF Act and the payment of Gratuity Act have been silent due to the continuity of the employment.

In spite of all legal frameworks to protect the in-migrant workers, violations of existing laws are common in Kerala. The wages of in-migrant workers are higher than minimum wages but there is difference between wages received by the in-migrant workers and local workers. Almost all provisions of Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act (1979**)** are violated. Since in-migrants are unaware of laws and policies, they are exploited in the construction sector of the State.

Conclusion

The construction work is a perennial industry and a very crucial one, providing substantial employment opportunities to unskilled labourers. The number of people employed in this industry is next only to agriculture and is considered to be the

second largest economic activity in the country. The profit motive technologies and investment in the construction sector neglects the priority of the working class. The contractors are not concerned about any welfare programs for workers, health issues, working conditions and accommodation of workers. Migrants provide a low-cost workforce for the urban unorganized sector. They often work long hours in poor working conditions, devoid of social security and legal protection. In spite of having all legal measures for the protections of in-migrant workers, the conditions of in-migrant workers are poor. There is a need to ensure that all in-migrants and their families have access to services and entitlements as enshrined in policies and law, while ensuring urban settlements become inclusive spaces as they expand in size and diversity. There is need for the proper implementation of labour laws. The State must protect the in-migrant workers from exploitation, as they are becoming the backbone of construction sector in Kerala.

Suggestions

The following are some suggestions put forward by the researcher;

- Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 is meant for regulation of the welfare of migrant workers. Important provisions of the all Labour Laws such as minimum wages, displacement allowance, medical facilities and protective clothing's remain unenforced. There is need for making it more meaningful and stringent and to implement it sincerely and forcefully. It must cover both origin and destination of migration.
- Institutional Linkage with the Labour Market- The governments should have initiated programs aimed at member registration, training and placement. Apart from providing work linkages, they also facilitate the workers access to welfare, social security and financial inclusion.
- There are no written contracts, no enforceable agreements regarding wages or other benefits and no commitments

regarding regular provision of work in the construction sector. Frequent raids in work sites and labour camps can enhance the welfare of inmigrant workers. Insurance cover against work site accident should be ensured**.**

- There should be a provision for compulsory Health Cards for in-migrants workers and it should be attached with Aadhaar and thereby create a data base.
- Employer must be alerted to keep sufficient details of in-migrant workers. Employer must take initiative to register the in-migrant workers under State welfare schemes.
- Enforcement of labour laws is more important. There should be a separate department for in-migrant workers. There should be proper mechanism for the strict enforcement of labour laws. At present there are not such enforcement mechanisms.

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9
Social Security of the Informal Sector Migrant Workers in Housing Construction Industry in Kerala: An Alternative View

Manoj P K

Housing is one of the primary human needs and housing development has been a priority for the successive Governments in India, particularly since the 1980s. Besides, it is widely recognized that housing construction activity plays an important role in economic development of a nation and this is more relevant for a developing nation like India. In spite of the top priority accorded to the housing sector in India, the security measures of labour in this sector are reported to be grossly insufficient. In Kerala, the vast majority of workers in this sector are unorganized. Moreover, over 60 percent of these workers are migrants from other states, like, Bihar, UP, West Bengal etc. As the Report of the Working Group on Social Security (Govt. of India) (Eleventh Five Year Plan, 2007-2012) points out regarding informal labour, "there is a dearth of formal security protection" and "this is a major challenge to the existing social security systems that have evolved in the last century". Accordingly, it is pointed out that "security and institutional support are required by all persons in order to face difficulties and to mitigate hardships in the event of losses due to sickness, injury, loss of income and inability to work".

The case of construction workers deserves special significance in this regard, especially in a state like Kerala where over 60 percent of them are migrants from other states. Because of the cyclical and seasonal nature of the housing construction industry and acute lack of formal organisational set ups to ensure social security of construction workers, an empirical study to map the

socio-economic profile of housing construction workers is quite relevant. This study is an effort in this direction, in the Kerala context where the share of informal migrant workers is very high. Thus, it is attempted to use ideas of alternative economics to solve their issues.

Review of Literature

Empirical studies in the social security area in general and that relating to the housing construction industry are very rare in the Indian context, and rather virtually nil in the Kerala context. An international study (relating to Nairobi, Kenya) (2003) has highlighted the vital need of concomitant policy initiatives to solve the problems of informal sector labour in housing construction industry in that country (viz. Kenya). Gopikuttan (1990) has observed that house construction activity in Kerala has been fast growing since the mid-1970s. This boom in housing activity has been having significant impact on factor and material markets, employment, skill-mix and technology. But this boom failed to provide any growth stimulus to the Kerala economy and also to satisfy the shelter needs of the poorer sections of the Kerala society. It is noted that lack of effective public policy to monitor capital flows into housing and related activities has been the reason for the beneficial effects of housing boom in Kerala not getting reflected on its economy. The author has advocated for the formulation of a housing policy along with clear-cut programmes for its implementation, which in turn being integrated with the general planning process. Constant and Zimmermann (2009) has sought to bring together the neoclassical economic assimilation, ethnic identities, and attitudes towards immigrants and the natives; and accordingly provides an analysis in understanding their interactions. It is noted that studies that integrate the ideas of alternative economics into migration context with a view to suggest strategies for enhancing the wellbeing and productivity of the migrants are virtually nil. Studies in the Kerala context have noted the causes for the changing pattern of migration in Kerala, viz. from out-migration to in-migration. Some major trends relating to migration in Kerala are: noted transition in the age structure, changes in the labour market because of

expansion of emigration and in-migration of manual workers into Kerala. (Rajan & James, 2008).

A very recent study by Deepika, V. S. and Savadatti, P. M (2018) has sought to identify the reasons for extensive in-migration into Kerala from the perspective of the employers (owners). The authors have considered three major sectors viz. (i) Construction, (ii) Manufacturing and Food Processing, and (iii) Hotels and Restaurants. With regard to the construction sector, the most chronic labour problems faced by the employers have been noted to be labour shortage and high wages. Other labour problems relating to the construction sector include shortage of skills, and problems associated with labour unions. It has been noted that the percentage of employers in construction sector who use the migrant labourers from other states (in-migrant labourers) is near-full, i.e. 99.31 percent, to be specific. Majority of the employers (58.33 percent) in the construction sector have experienced the shortage in the supply (availability) of local labour. As high as 73.61 percent of the employers in the construction sector have preferred the engagement of migrant workers. It is noted that studies in the Kerala context that looks into the social security issues of the large number of in-migrant labour from other states in the housing construction sector are virtually nil. This gap is sought to be bridged with the present study with a focus on the application of alternative economics. Accordingly, an attempt is made to suggest some sustainable model that can ensure the welfare of the in-migrant workers in the housing construction sector, and hence the Kerala economy as a whole; housing being a sector that can promote rapid economic development because of its vast forward and backward linkages with many other industries.

Statement of the Research Problem

While the utmost significance of the housing problem in India is well recognized, especially that of the low income and marginalized sections, the problem of the informal sector labour in the housing construction industry is yet to get due consideration. Besides the welfare perspective, housing has an

economic development perspective also, because of the vast forward and backward linkages of housing industry with over 250 ancillary industries, and also its high employment generation potential. Despite the multi-faceted benefits of housing industry as noted above, the long-term sustainability of this industry, however, depends on adequate welfare measures, specially the social security measures for labour. But this aspect is grossly overlooked in respect of informal labour in India, especially those in construction industry. So, empirical studies are required to assess the exact quantum of the problem, to identify the areas for focused attention, and to suggest strategies to help formulation of informed policy decisions. The case of integration of the ideas of alternative economics into interdisciplinary research on migration is sought to be explored in this study; the focus being on the urban informal sector migrant labour of housing construction sector in Ernakulam district of Kerala where there is the highest level of construction activities in the whole of Kerala and the share of migrant labour is 60 per cent or more of the total workforce.

In respect of Kerala state in particular, though there has been a sudden upturn in housing construction activity in the state since the mid-1970s, this housing boom has failed to generate growth stimulus to the state's economy, nor to meet the shelter needs of the poor people; the reason being the absence of an effective public policy to monitor the flow of funds into house construction activities. (Gopikuttan, 1990). This observation points to the need for meticulous planning and scientific and informed policy decisions on the investment in the housing sector, for attaining desired level of economic development along with fulfilling the shelter needs of the poor.

As preliminary studies of the migrant construction workers done in Ernakulam in the recent past have revealed lack of adequate social security measures and that they suffer from the cyclicality and seasonality in workdays available, a detailed study is very relevant to delve into such issues as (i) the level of insecurity that informal sector migrant workers in housing construction industry in Ernakulam district of Kerala is facing, (ii) the working and living conditions of the migrant informal sector

workers and the factors that have led to their migration to Kerala, (iii) the kind of security measures that are essential for the informal sector migrant workers, (iv) socio-economic profile of the informal sector labour, (v) instances of gender-based injustice, if any, etc. A study as above would help in formulating strategies for the development of a sustainable and inclusive labour market in the housing construction industry in Kerala, which in turn would foster balanced and equitable economic development of this state. This study is an attempt in the above direction, as it seeks to make a critical and field-based study with reference to one Ernakulam district in central Kerala – where the highest level of construction activities are taking place in the whole of Kerala and where there is an overwhelming share of informal sector migrant workers (of 60 per cent or more of the total workers in this industry). The research problem for this study may be spelt out as follows:

"Critically examining the exact nature of the social security issues in respect of the informal sector migrant workers in housing construction industry in Ernakulam district of central Kerala, mapping their socio-economic profile, and identifying the factors that require focused attention for bringing about an inclusive and equitable labour market in the region; by integrating the ideas of alternative economics into the empirical data on migrant workers who work under the registered real estate developers in housing construction industry".

Objectives of the Study

i. To study the socio-economic and demographic profile of the urban informal sector migrant workers in the housing construction industry in the Ernakulam district of Kerala;

ii. To study the social security issues faced by the urban informal sector migrant workers in Ernakulam district, extent to which they are covered under the welfare schemes promoted by the Government of Kerala;

iii. To study the case of gender injustice in the informal sector migrant workers and also the determinants and consequences of women workers;

iv. To identify the areas for focused attention for bringing about an equitable, and inclusive labour market in the housing construction industry, and to suggest strategies for informed policy decisions, by integrating the ideas of alternative economics into the study on migrant workers in Ernakulam.

Relevance and Significance of the Study

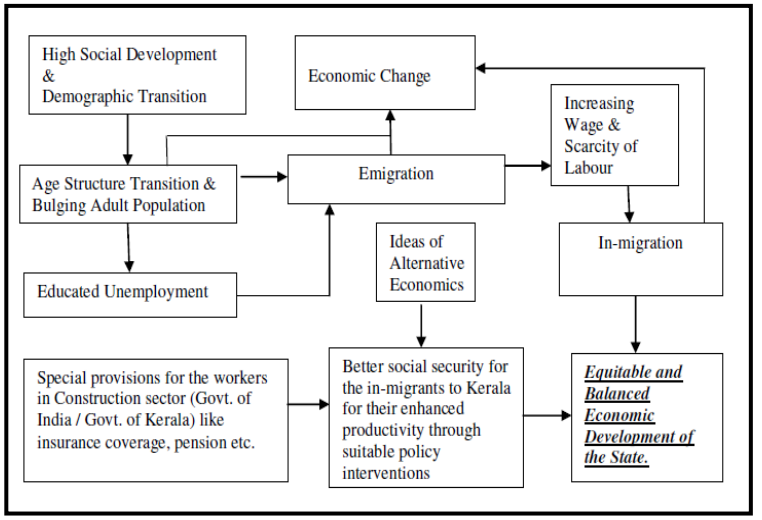
As already noted, housing investments have tremendous potential for facilitating faster development of an economy. Manoj (2004) has cited a number of reasons in the Indian scenario. These include, inter alia, the following: (i) Promotion of GDP growth through creation of additional demand, (ii) Creation of employment [since a study by National Building Organisation (NBO) study has revealed that construction of 2 million housing units in India would generate 10 million man years of employment], (iii) Multiplier effect (forward and backward linkages) according to which Re.1 increase in expenditure on housing sector increases GDP by 0.78 (as per NBO estimates), (iv) Capacity to kick-start a recession hit economy, and so on. However, despite many macroeconomic benefits as above, the long term sustainability of any developmental initiative requires conducive labour market. An international study (Nairobi, China) has pointed out a number of issues concerning employment and working conditions of informal sector labour in the housing industry, like, legal and policy issues, training and capacity building, health and safety, information and linkages etc. (Mitulla&Watchira, 2003).

Government of India, of late, has recognised the utmost significance of the workers in the construction sector. In its recent Draft Model Welfare Scheme (May, 2018), the union government has proposed its plans to offer free insurance cover, pension, scholarship for the children of the workers. There are also provisions for health and maternity cover, housing facility, and facilities for the skill development of the workers. The Draft scheme has been prepared in response to a Supreme Court order in this regard in May 2018.

Thus, social security of informal labour in general, and that of labour in housing construction industry in particular, is of vital

significance in the contemporary centrality in India. The immense developmental potential of housing adds up to the above significance, for a developing nation like India. In this regard, it may be stated that ideas of alternative economics can be meaningfully integrated into migration research. The field study is done at Ernakulam in Kerala would provide the requisite empirical data to administer the above integration. The model that is used for the present study is given in Figure 9.1 below. The special socio-economic features of Kerala lead to greater scarcity of labour, predominantly in sectors like construction and housing. The higher wage rates prevalent in Kerala is an attraction for the workers of other states.

Figure 9.1: Development through Social Security of In-migrants in Kerala


High Social Development & Demographic Transition
Economic Change
Increasing Wage & Scarcity of Labour
Age Structure Transition & Bulging Adult Population
Emigration
Ideas of Alternative Economics
In-migration
Educated Unemployment
Special provisions for the workers in Construction sector (Govt. of India / Govt. of Kerala) like insurance coverage, pension etc.
Better social security for the in-migrants to Kerala for their enhanced productivity through suitable policy interventions
Equitable and Balanced Economic Development of the State.

Source: Developed by the Author

As depicted in Figure 9.1, in the context of Kerala, the ideas of alternative economics can be meaningfully integrated with the special provisions for workers in Construction and allied sectors like housing for ensuring enhanced productivity and better standard of living of the migrants. This in turn results in equitable and balanced economic development of the state.

Methodology

Though the study is regarding the informal sector labour in the residential housing construction industry in Kerala, as the very title suggests the scope of the empirical investigation (field study) is limited to the residential building projects of major Real Estate Developers ie. those having registration with the industry association viz. CREDAI (Confederation of Real Estate Developers in India). Thus, the universe of the study is "the set of all residential building projects of all Real Estate Developers having registration with Kerala Chapter of CREDAI". For the initial study, the focus is on CREDAI members having residential construction projects in Ernakulam city region only. Based on a preliminary study, it is noted that there are 80 Real Estate Developers having membership with CREDAI–Kerala Chapter. Of these 80 Developers, one-tenth (viz. 8 Developers) have been chosen based on purposive sampling technique, these eight developers being those having long track-record in the field and have a varied mix of housing projects, including 'Affordable Housing' or, 'Budget Housing' (i.e. housing projects units offered at substantially reduced prices). Because 'Housing for All by 2022' is the official goal for the Government of India in the ongoing regime (2017-2022), as in the earlier regime, like, the Housing policy (for 2007-2012) vide. NUHHP 2007 (National Urban Housing and Habitat Policy 2007). With reference to the residential construction projects in Ernakulam under the selected Developers as above, detailed study of the composition of their workforce, share of migrant workers, compliance with labour laws, social security issues of the migrant workers etc. have been analysed in this research study.

Primary data were collected using a carefully drafted Questionnaire from the informal labour employed in the ongoing construction projects of the selected sample of eight Real Estate Developers in Kerala. Major issues that the migrant workers face were sought to be identified through this Questionnaire. Other relevant primary data (relating to the Developer firm, its management, current policies etc.) were obtained from the principal officers of the respective real estate

Developers. Further, contractors engaged in making available migrant workers for the different Developers under study were interviewed to collect primary data relating to the workers. Secondary data were used for an overall study of the informal labour market, especially those relating to the housing construction industry. Major sources include publications of Govt. of India / Govt. of Kerala, National Building Organisation (NBO), Reserve Bank of India (RBI) etc. Reputed national and international publications on labour economics, research journals including relevant reports of the World Bank Group, NSSO, NCAER, NBO etc. were used for collection of secondary data required for this study. Another vital source of secondary data for this study was the office of the Kerala Building and Other Construction Workers Welfare Board (Govt. of Kerala.) from where data were collected from their official records. The field study for this research project was done during the period July to Oct. 2018 at their respective construction sites and residential premises.

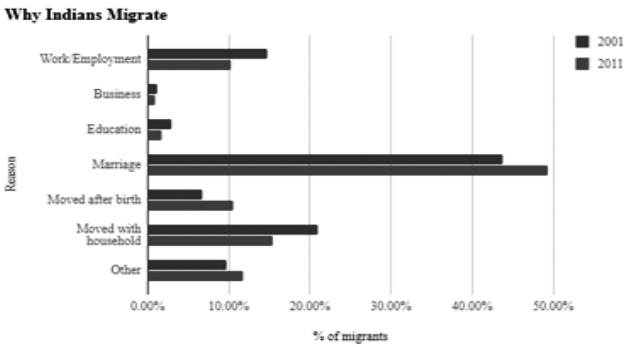
Internal Migration of Urban Informal Labour in India and Kerala

Internal migration involves the movement of people within one nation across the various states in the nation. In fact, internal migration is absolutely beneficial to any nation for the redistribution of labour and channelizing them to the necessary sectors. India, as a nation, has got absolute differences or disparities across its citizens and also various geographic regions in the nation; both structural as well as in terms of economic and demographic profile. Such issues of disparity issues can be solved largely through internal migration. Movement of people from abundant sector to scarce sector facilitate development which helps to the growth of the nation. According to Ram Bhagath “No country has developed without migration and as India is developing and growing, interstate migration was inevitable factor and with migration there will be urbanisation and development”. Internal migration can be encouraged to redistribute population for seeking employment which influence the socio economic and political life of the

sending and receiving region. Census and surveys exhibit that there is a tremendous increase in the flow of in-migrants across the regions. Regarding the internal migration in India, marriage is the key reason for the movement of women and it is often associated with short distance. The long distance movements are largely among the males and are characterised by labour migration to seek employment and earn higher income. On the basis of this movement it is permanent, semi-permanent or seasonal. Permanent and semi-permanent are those staying for long-short period of time but seasonal migrants are continuously changing their place of residence. The problem associated with seasonal migration was the problem of integration.

Migration on account of change of residence by women after marriage constitutes significant proportion of the inter-state migration. The difference between in–migrant and out–migrants for each state, shows that Maharashtra is at the top of the list with the highest in-migrants (23.8 lakh net migrants) and is followed by Delhi with 17.6 lakh net migrants in the second place, Gujarat with 6.8 lakh in the third place, and Haryana with 6.7 lakh in the fourth. At the bottom of the list (i.e. states with the highest number of out-migrants) are states like Uttar Pradesh (-26.9 lakh net migrants) at the last position and preceded by Bihar in the next position (-17.2 lakh net migrants).

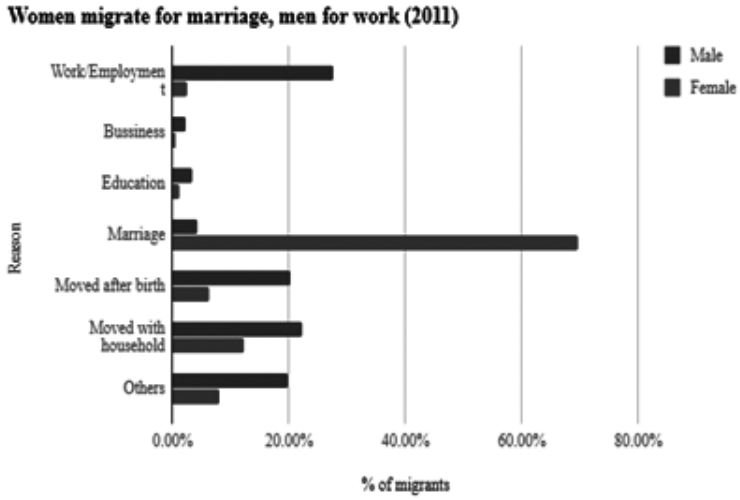
Figure 9.2: Reason for Migration in India during 2001-2011



Source: Govt. of India, Economic Survey 2017, Ministry of Finance.

From Figure 9.2, regarding the reason for migration, marriage is the driving force, shows an increase in 2011 (49 percent) comparison with 2001 (44 percent). And the percentage of migrants seeking employment was decline in comparison with 2001. It shows lesser Indians now migrate for work and employment which is 10.2 percent in 2011 down from 14.4 percent in 2001.

Figure 9.3: Gender Differences in Migration during 2001-2011



Source: Government of India, Economic Survey 2017, Ministry of Finance

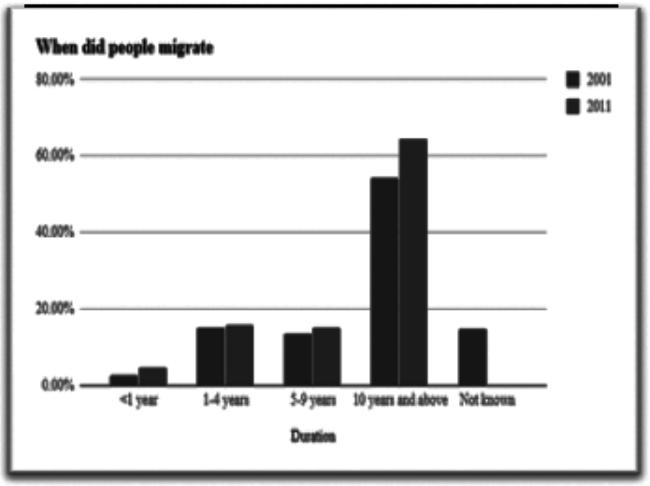
Considering Figure 9.3, when we look into the data on the reason for migration under gender classification, it may be noted that women migration in India have been largely due to marriage and male migration are due to the employment. During 2001-2011 period, marriage was the predominant reason for migration of women. As it was around 21.7 crore of the 31.2 crore female migrants which is 69.7 per cent in 2011.when we look into the previous data it is 65.9 per cent in 1981-1991 and

64.9 per cent in 1991-2001 are migrated due to the same reason as marriage. For men work and employment was the dominant reason.

Total number of internal migrants was increased drastically during 2001-2011 between last two censuses. Based on the census data 2001, the number of migrants by place of last residence in India was 314.5 million. It was raised to 453.6 million in 2011, reveals an increase of 139 million, an average of about 14 million migrating every year. This is against the figure of 82 million migrants added during 1991-2001, implying that the decadal growth in migration has gone up from 35.5 per cent during 1991-2001to 44.2 per cent during 2001-11. India's internal migration was increased by nearly 100 million (10 crore) with 62 per cent increase; this is almost twice as many as China.

Figure 10.4 shows the duration of migration. It is noted that 64 percent of migrants have moved along for periods more than10 years as of 2011. It was 54 percent as of 2001. This fact suggests that most of the migrants are still continuing in the migration chain.

Figure 9.4 Duration of Migration during 2001-2011



Source: Government of India, Economic Survey 2017, Ministry of Finance.

Trend and Magnitude of Internal Migration in India

When we observe the trend and magnitude of internal migration in India, it is identified that population mobility was low during 1950-51 and also migration statistics to the early 1990's suggest there is a decline in population mobility. It is observed in the 1991 census, using changes of last place residence exhibit that 27.4 per cent (232 million people) of the population considered to have migrated but it high in 1971 and 1981 by 30.6 per cent and 31.2 per cent respectively, remarks a sharp decline in population mobility in 1991 census. But later, NSS figure for 1992-1993 and 1999-2000 suggest an increase in migration rate from 24.7 per cent to 26.6 per cent over the period. It exhibit that population mobility was increased during the last decade of 20th century. Bhattacharya and Srivastava observed in 2002 there is an increase in internal migration and it is largely to urban–urban centred flows based on the NSS data between 1992-1993 and 1999-2000. The number of migrants by place of last residence in India was 314.5 million in 2001. The figure raised to 453.6 million in 2011, showing an addition of 139 million, an average of about 14 million migrating every year. This is against the figure of 82 million migrants added during 1991-2001, implying that the growth in migration has gone up from 35.5 percent during 1991-2001 to 44.2 percent during 2001-11.

Traditionally, inter-state migrants in India comprised only a small percentage of the total migrants. Results from the 2011 Census are providing data on this migration stream. However, as per the 2001 Census, inter-state migrants constitute only 13 per cent of total migrants. The last NSS on migration for 2007-08 shows that inter-state migrants were 11.5 per cent, up from 10.3 per cent in 1999-2000. Even if take the Census figures (percentages), the number of inter-state migrants would be about 18.5 million in 2011, averaging less than two million a year. The net inter-state migrants in the age group of 20-29 is estimated at about 11 million. Assuming that the migrants who are 20-29 years old constitute 20 per cent of all migrants, the total inter-state migrants would be 55 million, 5-6 million individuals a year during 2001-11. Importantly, NSS 2007-08 reveals that as

many as 27 per cent of all inter-state migrants are 20-29 years old. The corresponding figure among those moving for employment reasons is as high as 32 per cent. Using a more suitable scaling factor, the number of migrants based on the cohort method would be about 34 million.

Higher growth in internal migration is observed in the recent years. This is reflected in the number of migrants reporting less than 10 years of stay. The 2011Census data show that the migrants reporting over 10 years of stay have increased faster than those of all durations, the two figures being 71 per cent and 44 per cent respectively. Besides, the increase in the number of net rural to urban migrants, reporting duration of stay more than 10 years, is 70 per cent, much higher than 45 per cent reported for less than 10 years' duration. Also, the figures of net rural and urban migration for employment reasons are 56 percent and 31 percent respectively.

Urban Informal Sector Labour in India

In India, the unorganized or the informal sector account for more than 90 percent of the workforce in the country. In fact, almost 50 percent of the total national income generated in the country corresponds to the informal sector. (Govt. of India, NSC, 2012). Ever since the initiation of the liberalization policies in the early nineties, informalization of jobs has become a matter of concern. Mounting competition along with enlarged market opportunities and scarce resources have led to the emergence of an informal economy. The predominance of the informal sector has led to a situation of the benefits of economic growth being concentrated among few with a growing proportion of the population living as working poor. Though the Government changed its policy strategy to that of inclusive and sustainable growth in the last decade, the fundamental issues leading to growing informalization are yet to be targeted.

Formal-Informal employment is prevalent in two sectors viz; organized (formal) and unorganized (informal). The National Commission for Enterprises in the Unorganised Sector (NCEUS) defines the informal and unorganized sectors as "all unincorporated private enterprises owned by individuals or

households engaged in the sale and production of goods and services functioning on proprietary or partnership mode and with less than ten workers". Informal workers are there both in organized and unorganized sectors.

Table 9.1: Employment across Organised and Unorganised Sectors in India

2004-05	Organised	Unorganised	Total
Formal	32.06 (52)	1.35 (0.3)	33.41 (7.3)
Informal	29.54 (48)	396.66 (99.7)	426.20 (92.7)
Total	61.61 (13)	398.01 (87)	459.61 (100)
2011-12	Organised	Unorganised	Total
Formal	37.18 (45.4)	1.39 (0.4)	38.56 (8.1)
Informal	44.74 (54.6)	390.92 (99.6)	435.66 (91.9)
Total	81.92 (17.3)	392.31 (82.7)	474.23 (100)

Source: Computed using NSSO data.

According to NCEUS, "Informal workers consist of those working in the informal sector or households, excluding regular workers with social security benefits provided by employers and workers in the formal sector without any employment and social security benefits provided by the employers". Table 9.1 gives the details of organized and unorganized workers. The employment in the organised and unorganized sectors was in the ratio 13:87 in 2004-05 and 17:83 in 2011-12 (Table 9.1). This shows an increase in organized sector employment from 13 percent in 2004-05 to 17 percent in 2011-12.But this increase in organized sector employment was informal in nature (48 percent in 2004-05 increased to 55 percent in 2011-12) since the share of organized formal employment decreased from 52 percent in 2004-05 to 45 percent in 2011-12. But in the unorganized sector the share of formal employment marginally increased from 0.3 to 0.4 percent, while that of informal employment declined marginally from 99.7 to 99.6 percent.

Table 9.2: Sector-wise Distribution of Employment - Organised and Unorganised

2004-05	Organised		Unorganized		Total
	Formal	Informal	Formal	Informal	
Agriculture	0.76	0.99	0.00	56.75	58.50
Manufacturing	1.21	2.10	0.10	8.33	11.73
Non-Manufacturing	0.53	1.45	0.00	4.42	06.41
Services	4.48	1.89	0.19	16.80	23.36
Total	6.98	6.43	0.29	86.30	100.00
2011-12	Organised	Un organized	Total		
	Formal	Informal	Formal	Informal	
Agriculture	0.06	0.16	0.00	48.69	48.90
Manufacturing	1.48	2.79	0.06	8.28	12.60
Non-Manufacturing	0.69	3.77	0.01	7.18	11.65
Services	5.62	2.72	0.22	18.29	26.84
Total	7.84	9.43	0.29	82.43	100.00

Source: Computed using NSSO data

Table 9.3 Informal Employment in Non-agricultural secto

Particulars [Org.- Organised; & Unorg.–Unorganised]	2004-05			2011-12		
	Organ.	Unorg.	Total	Organ.	Unorg.	Total
Mining	0.91	0.90	1.82	0.99	0.80	1.79
Manufacturing	9.64	38.28	47.92	13.23	39.26	52.49
Electricity & water supply	0.16	0.08	0.24	0.78	0.43	1.21
Construction	5.60	19.35	24.94	16.12	32.80	48.92
Trade, hotel & restaurant	1.71	44.30	46.02	2.57	47.60	50.17
Transportation, storage & communications	1.35	13.31	14.66	2.31	15.71	18.02
Real estate & other business activities	0.49	2.93	3.43	1.05	3.96	5.02
Education	2.40	2.75	5.15	3.55	2.75	6.31
Insurance	0.41	0.72	1.13	0.67	1.14	1.81
Heath	0.61	1.49	2.10	1.02	1.66	2.68
Public Admin.& Defense	1.09	0.08	1.17	1.11	0.00	1.11
Other services	0.64	11.62	12.26	0.58	13.92	14.50
Total	25.01	135.81	160.83	44.00	160.04	204.03

Source: Computed using NSSO data.

Informalisational most doubled in the construction sector where the informal employment increased from 24.94 million to 48.92 million during the period 2004-05 to 2011-12, with the increase being concentrated in the unorganized sector. In the manufacturing sector the increase in informal employment was mainly in the organized sector, while in the trade and transport sector the increase in informal employment was evenly spread among both sectors. Regarding the spatial and gender-wised is attribution of informal employment, Table 9.4 gives the details of workforce at 2-digit NIC (National Industrial Classification) level in the disaggregated form to show the spatial and gender distribution of informal employment. The economic sectors selected are those that account for morethan 90 percents hare in total employment for each of the categories viz. rural males, rural females, urban males and urban females. It may be seen that almost 98-99 percent of the rural and urban males and females working in the sectors of crop and animal production, construction and retail trade were informal workers. Among the other sectors the distribution of informal workers spatial and gender wise was not uniform. For instance rural males were engaged in land transport, other services, manufacture of other nonmetallic mineral products, manufacture of wearing apparel, hotels & restaurants etc. while more of rural females were engaged in manufacture of tobacco products and textiles.

Table 9.4: Informal Employment–Gender and Spatial Distribution (2011-12)

Sectors	Rural Male	Rural Female	Urban Male	Urban Female
Crop and animal production, hunting and related service activities.	99.98	99.97	98.89	99.73
Construction	98.55	99.92	92.17	97.19
Retail trade except motor vehicles & motorcycles	98.89	99.36	97.49	96.66
Land transport and transport via. Pipelines	92.85		83.38	
Other services	97.32		92.62	96.44
Education	36.19	60.27	37.39	50.61

Manufacture of other non-metallic mineral products	92.64			
Manufacture of food products and beverages	86.82		86.14	96.26
Manufacture of wearing apparels	95.94		94.12	94.78
Hotels & restaurants	97.65			92.97
Manufacture of tobacco products		98.83		93.69
Manufacture of textiles		98.85	86.23	97.94
Business Activities			58.79	46.86
Public administration and defense; compulsory social security				14.31
Wholesale trade except motor vehicles & motorcycles			90.98	
Manufacture of furniture			94.95	94.92
Manufacture of fabricated products, except machinery & equipment			82.58	
Human health activities (hospital, medical)			62.03	52.27
Financial service activities, except insurance and pension funding			26.61	
Manufacture of machinery and equipment etc.			69.31	
Manufacture of chemicals and chemical products			46.84	
Manufacture of leather and related products			87.69	
Manufacture of computer, electronic and optical products			43.87	
Activities of households as employers of domestic personnel				98.07

Source: Computed using NSSO data.

While in the case of urban males' majority were engaged in the manufacture of wearing apparel, wholesale trade, furniture etc. urban females were mainly engaged in the manufacture of

food products and beverages wearing apparel, hotel sand restaurants, tobacco products, textiles, activities of households as employers of domestic personnel. There was significant involvement of urban males and females in human health activities sector as informally employed, while the activity involving working as domestic servants was predominated by urban females (98percent).

In Table 9.5, a comparison was made between State-wise distribution of informally employed in the manufacturing sector vis-à vis the labour reform index which shows that even when the labour reform indexishigh indicating that even in States like Gujarat where the stringency of labour regulations was lowered by procedural changes, simplifying compliance and limiting the scope of regulations, the jobs that were created in the manufacturing sector were informal in nature. Similaris the case with Uttar Pradesh and Andhra Pradesh. Irrespective of labour reforms being a hindrance or otherwise, the extent of informal employment was more than 90 per cent in the major industrial states. These findings only indicate that labour reforms alone will not reduce informalization.

Table 9.5: State-wise Share of Informal Employment Vs. Labour Reform Index

States	State share in All India Manufacturing Workforce	Labour Reform Index	Share of Informal workers in Manufacturing in the State
Uttar Pradesh	14.44	58	77.45
Andhra Pradesh	7.08	56	91.16
Gujarat	8.71	53	74.29
Rajasthan	4.05	47	85.51
Punjab	3.19	46	93.12
Madhya Pradesh	3.33	46	77.03
Odisha	2.89	44	66.02
Karnataka	5.41	42	91.79
Tamil Nadu	11.11	41	98.54
Maharashtra	10.25	35	99.18

Kerala	2.98	32	78.67
Bihar	2.65	29	98.52
West Bengal	14.18	27	87.82

Source: Computed using NSSO data.

Table 9.5 shows the skill set of the informal workers in the non-agricultural sector was looked at. Nearly 23 per cent of the workforce was found illiterate both in 2004-05 and 2011-12. Almost 48 per cent of the workforce had basic education only upto the secondary level.

Unorganised Labour in Kerala

Migrant labourers in Kerala were about 2.5 million as of 2013 as per a study done by Gulati Institute of Finance and Taxation (GIFT), Thiruvananthapuram. Every year, their population increases roughly by about 2.35 lakhs. These migrants include semi-skilled as well as unskilled labourers from other states of India; and are mostly from West Bengal, Orissa, Bihar, Chhattisgarh, Jharkhand, Assam and other north-eastern states. They have migrated to Kerala in search of employment and higher wages. The underlying reason for the influx of these many migrant workers lie in the reluctance of the indigenous Keralites people (*Malayalis'*) to do manual jobs because there is a social stigma associated with it, and besides the wages are relatively low. As per the study by GIFT (2013), the relative (state-wise) shares of migrants in Kerala show that West Bengal is at the top with 20 per cent share. (Table 9.6).

Table 9.6: Relative Shares of Migrant Workers in Kerala (2013) (Percentage)

West Bengal	20.00	Uttar Pradesh	14.83
Bihar	18.10	Orissa	06.67
Uttar Pradesh	14.83	Others	08.29
Assam	17.28	Total	100.00

Source: GIFT, Thiruvananthapuram (2013).

According to a more recent statistics (2017), the total migrant workers in Kerala is about 40 lakhs (Unnithan, V. B., 2017). The district-wise distribution of migrant workers suggest that Ernakulam has the highest share of over 8 lakhs migrant workers and is followed by Thiruvananthapuram with over 7.5 lakhs, and so on. (Table 9.7)

Table 9. 7: District-wise Distribution of Migrant Workers in Kerala (2017)

Ernakulam	800,500	Kannur	250,000
Trivandrum	750,000	Malappuram	250,000
Kozhikode	400,000	Palakkad	250,000
Kollam	400,000	Others	150,000
Thrissur	400,000	TOTAL	4,000,000

[Unnithan, V. B., Mathrubhumi, 14.12.2017 (Print)].

The Working Group on Social Security constituted by the Government of India for the Eleventh (XI) Five Year Plan (2007-2012) has pointed out in its Report submitted to the Government that in respect of the informal labour there is acute dearth of formal security protection and that this continues to be a key challenge to the prevailing social security systems which have evolved during the last century in India. Hence, the report points out that security and institutional support are required by all migrants so as to effectively face their difficulties and also to alleviate their hardships in cases of losses arising out of sickness, injury, loss of income and inability to work.

Owing to the cyclicality and seasonality associated with housing construction activities and also the acute lack of formal organisational set ups to ensure social security of construction workers (who in turn are mostly unorganised workers), an empirical study is attempted here to analyse the socio-economic profile of construction workers, the extent to which social security measures are available to them, gender-disparity in this regard, and so on. Another major finding in the Report of the Working Group on Social Security is that because of the limitations in portability of entitlements, the inter-state migrants

in Kerala are unable to enjoy some for their rightful entitlements and benefits from the Central and State Governments they used to enjoy before their migration into Kerala. Further, it is pointed out in the Report that the inter-state migrants are losing their entitlements once they cross borders of their home states. For example, migrant workers from the states like Bihar, Orissa, West Bengal or Assam who used to avail essential items like rice, wheat, and such other provisions at subsidised prices through the Public Distribution System (PDS) in their respective native states would cease to avail such benefits from the PDS machinery prevalent in Kerala state. Of late, the Aadhaar unique identity cards might, to certain extent, could address the above problem of migrants.

The State Labour Department is taking all possible steps to protect them from exploitation, in consideration of their illiteracy and language problems. The Labour Officers in Kerala are given instructions to safeguard the interests of the poor migrants from other states, they being informal workers who have come to Kerala in search of their livelihood. District Level squads have been formed to make inspections at the work sites as well as their residential areas to ascertain the facilities provided to these workers. Awareness meetings and medical camps were conducted for enlightening the migrant workers about their legally entitled rights and benefits to be provided by their employers. The Department organises Medical camps periodically for the benefit of these migrant workers. Besides, the Department has been keen to take up the challenge of eradicating the menace of child labour using the children of migrant workers; and towards this cause the Department has been enforcing the Child Labour (Prohibition and Regulation) Act, 1986 and the Child Labour (Prohibition and Regulation) Rules, 1993. Based on the landmark judgment of the Supreme Court of India in Dec. 1996, Child Labour Rehabilitation-cum-Welfare Societies were formed in all the 14 districts of Kerala for the comprehensive wellbeing of the working children. So, the Labour Department of Kerala is conducting awareness camps throughout the state so as to arrive at a general consensus among the people across various sectors of the society.

Informal Labour in Housing Construction Sector in Ernakulam District: Some Empirical Evidence

Socio-Economic Profile of Migrant Workers

Of the 160 workers under study, the highest number 58 (36.25 per cent) are from West Bengal, 48 (30 per cent) are from Bihar, 44 (27.50 per cent) are from Assam, and the rest 10 (5.25 per cent) are from Odisha. Over four-fifth of them (81.25 percent) are men and rest (18.75 percent) are women (Table 9.8).

Table 9.8: Distribution of Migrant Workers based on State of Origin and Gender

State	Number of workers and their Gender		Percentage
Assam	44	(36 M and 08 W)	27.50
Bihar	48	(38 M and 10 W)	30.00
West Bengal	58	(47 M and 11 W)	36.25
Odisha	10	(09 M and 01 W)	06.25
Total	160	(130 M and 30 W)	100.00

Source: Field Survey [M – Men, W- Women]

The largest share of 60 (37.50 per cent) are in the age-group of 26-35 and another 52 (32.50 per cent) are in the age group of 36-42 and 36 (22.50 per cent) are in the category of 46 years or above. The rest 12 migrant workers are in the youngest age-group of 15-25. (Table 9.9).

Table 9.9: Distribution of Migrant Workers on the basis of Age

Age	Number of workers	Percentage
15-25	12	07.50
26-35	60	37.50
36-45	52	32.50
46 and above	36	22.50
Total	160	100.00

Source: Field Survey

In fact, half of the migrant construction workers (50 percent) are Muslims and 40 per cent of them are Hindus. Of the rest 10 per cent, 7.5 per cent are Christians while 2.5 per cent do not disclose their religions. (Table 9.10).

Table 9.10: Distribution of Migrant Workers on the basis of Religion

Religion	Number of workers	Percentage
Hindu	64	40.00
Muslim	80	50.00
Christian	12	07.50
Others / Not Disclosed	04	02.50
Total	160	100.00

Source: Field Survey

Migrant workers have very low level of education. Only 7.5 percent have education above 10th Standard. As high as 38.75 percent of them have UP level education, while 17.5 percent of them have only LP level education. It is also noted that as high as 13.75 percent of them are illiterates. (Table 9.11).

Table 9.11: Education-wise Distribution of Migrant Construction Workers

Educational qualification	Number of workers	Percentage
Illiterate	22	13.75
Lower Primary (LP)	28	17.50
Upper Primary (UP)	62	38.75
High school	36	22.50
Above 10th Standard	12	07.50
Total	160	100.00

Source: Field Survey

The migrant workers have obtained their jobs through diverse sources, many of them through the support of outside parties like contractors. In majority of the cases, their own friends or relatives have played a major role in fetching them jobs. The source of getting employment for 50 migrant workers (31.25 per

cent) are through friends, while for 48 of them (30 per cent) got their jobs through their contractors and 42 of them (26.25 per cent) got their jobs through their own relatives. Only 10 migrants (6.25 per cent) of the migrants could manage to get their jobs out of their own efforts, while another 10 of them got employment through their friends and contractors. (Table 9.12).

Table 9.12: Distribution of Migrant Workers on the basis of Source of Jobs

Particulars	No. of Workers	Percentage
Alone	10	06.25
Friends	50	31.25
Relatives	42	26.25
Contractors	48	30.00
Contractors & Friends	10	06.25
Total	160	100.00

Source: Field Survey

As high as 48 migrant construction workers (30 percent) are engaged in Masonry works and allied activities like brick layering, plastering, and the like. Another 44 migrant workers (27.50 percent) are working as Helpers which include all sorts of miscellaneous activities related to building construction. Third major type of workers are those involved in Carpentry and allied works (30 Nos, 18.75 percent.). Then comes those migrants who are engaged in Bar bending and allied activities (like, cutting of steel rods, clipping of rods etc.) (26 Nos, 16.25 percent). The next major type of construction work handled by migrant workers is that of Welding and all allied activities like Fabrication, Installation and the like (12 Nos, 7.5 percent). Table 9.13 gives the occupation-wise details of the migrants.

Table 9.13: Occupation-wise Distribution of Migrant Construction Workers

Particulars	No. of Workers	Percentage
Helpers (and other Miscellaneous works)	44	27.50
Masonry works (Brick layering, Plastering etc.)	48	30.00
Carpentry and allied works (like, Centering)	30	18.75
Bar Bending and allied works (like, Cutting etc.)	26	16.25
Welding and allied works	12	07.50
Total	160	100.00

Source: Field Survey

Based on the feedback from the sample of 160 migrant construction workers, it is noted that as high as 92 workers (57.50 percent) are being paid remuneration on a weekly basis. As high as 44 of them (27.50 percent) are being paid on a daily basis, while another 20 workers have reported that they are being paid on a monthly basis. The rest 4 workers have different periodicities for payments (eg, fortnightly or without exact pattern) (Table 9.14).

Table 9.14: Payment Periodicity of the Migrant Construction Workers

Particulars	No. of persons	Percentage
Daily	44	27.50
Weekly	92	57.50
Monthly	20	12.50
Other periods (without an exact pattern)	04	02.50
Total	160	100.00

Source: Field Survey

Regarding disparity, if any, in respect of payments or other conditions of work (working hours, rest hours etc.) it is noted that vast majority of them, both men and women, have not noticed any such wage-gap or other types of gaps, like those relating to the working conditions, etc. In fact, only 5 migrants out of the total 160 migrants in the sample (i.e. 3.125 percent) comprising of 4 men (M) and 1 woman (W) alone have noted such disparities. Among the men migrants, only 4 men out of 130 men (3.08 percent) and among the women migrants only 1 woman out of 30 women (3.33 percent) have pointed out any such disparity. On the other hand as high as 22 migrants out of the total 160 (13.75 percent) have reported no such disparity. Vast majority of 133 migrants (83.125 percent) are either unaware or are not bothered about any such disparity. In short, it may be noted that the problem of wage gap or other gaps or disparities, vis-à-vis the domestic workers is not at all a major issue. Rather, most of them are fully unaware of their rights as of now. (Table 9.15).

Table 9.15: Disparity in Payments or other Conditions of Work to Migrants

State of Origin	Disparities (Gaps in Wages, working hours etc.)			Disparity (Out of) (Total)
	Yes	No	Not aware	
Assam	1 M, 0 W	4 M, 2 W	31 M, 6 W	01 (44)
Bihar	1 M, 1 W	5 M, 2 W	32 M, 7 W	02 (48)
W. Bengal	2 M, 0 W	5 M, 2 W	40 M, 9 W	02 (58)
Odisha	0 M, 0 W	2 M, 0 W	07 M, 1 W	00 (10)
Total	4 M, 1 W	16 M, 6W	110 M, 23 W	05 (160)

Source: Field Survey [M – Men, W- Women]

As high as 98 of them (61.25 percent) are staying at their owners' premises free of cost. Another 52 of them (32.50 percent) are staying at nearby lodges or such other rented premises while the rest 10 of them (6.25 percent) are staying at owner's plot at nominal cost. (Table 9.16).

Table 9.16: Distribution of Migrants based on their Stay or Accommodation

Particulars	No of workers	Percentage
Lodge	52	32.50
Owner's plot free of cost	98	61.25
Owner's plot at nominal cost	10	06.25
Total	160	100.00

Source: Field Survey

It is noted that 96 migrant workers (60 percent) are sending money to homes on weekly basis while 28 of them (17.50 per cent) are sending on a monthly basis, and 24 of them do this once in 2 months (15 percent). The rest 12 (7.5 percent) are carrying money at the time of returning home. (Table 9.17).

Table 9.17: Pattern of Sending of Money to Home by the Migrant Workers

Particulars	No of workers	Percentage
Weekly	96	60.00
Monthly	28	17.50
Once in Two months	24	15.00
Returning time	12	07.50
Total	160	100.00

Source: Field Survey

It is noted that 153 of the migrant workers under study (95.625 per cent) are satisfied with their present jobs as they get higher wages here in Kerala vis-à-vis their native places; and they are not bothered about or are unaware of social security measures, safety measures etc. The rest 7 workers alone (4.375 percent) are not satisfied with the social security measures, safety measures, etc. but they too are satisfied with their wages. (Table 9.18).

Table 9.18: Satisfaction of Migrant Workers with their Present Job

Particulars	No of workers	%
Satisfied (with wages) and not concerned with social security measures and other terms of employment.	153	95.625
Satisfied (with wages) but not satisfied with social security measures, safety measures and other terms.	07	4.375
Total	160	100.00

Source: Field Survey

It is worth pointing out that vast majority (say, almost 96 percent) of the migrant construction workers are rather unaware or are not concerned with their social security rights, similar rights related to safety at work places and similar privileges. Only those who have had faced some serious set-backs during their (just about 4 percent) are concerned about such measures. Or, almost all of them are motivated by the higher earnings available in Kerala vis-à-vis the relatively lower wages available in their home states. At present issues like social security, disparity in wages etc. do not bother most of the migrants.

To sum up, it may be noted that given the low level of education of the migrant workers and still lower level of their awareness regarding their rights in respect of adequate social security, security at the work sites etc., vast majority of them are not serious about their social security issues. Rather, they are contended with the significantly higher level of wages that they are earning here in Kerala vis-à-vis their own home states. Apart from their need for financial security (which in turn is reasonably fulfilled in terms of their higher earnings) their concerns do not extend toward higher order needs like social security, security at the work places, right for decent living conditions etc. This situation needs to be changed through appropriate interventions by applying the principles of alternative economics. First and foremost is strict adherence of the social security legislations which are already in place, and secondly comes the need for imparting them proper education

on their rights and privileges. Such policy interventions will improve their working and living conditions as well as ensure social security and improvement in their working and living conditions.

Suggestions based on the Findings of the Study

Because of the fact that about 40 percent of the workers are having only inadequate accommodation and living surroundings, such facilities be provided to them also by their employers themselves, rather than through the middle men like contractors. Besides, in general, their living conditions are very poor, especially with respect to hygiene. This is applicable to all the migrant workers, notwithstanding the fact that most of them do not have any complaint in this regard. This situation definitely needs improvement. This in turn would ensure their better productivity through improved health. Further, such a measure would ensure the requisite regulatory compliance too.

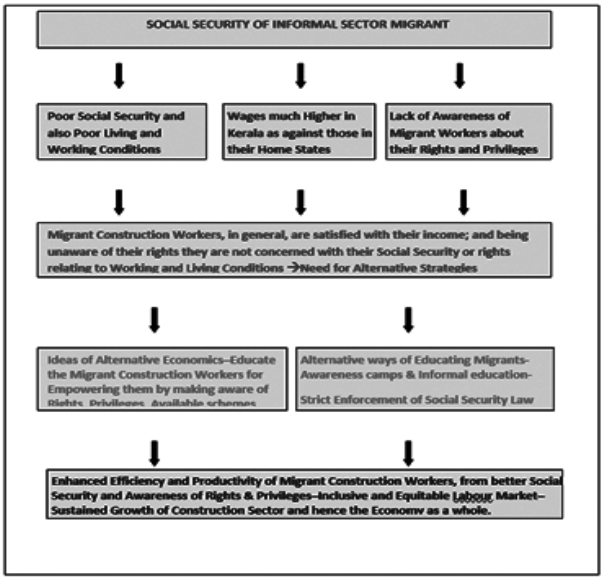
It is noted that the social security measures are poorer than the ones stipulated in the labour laws. Regulatory provisions relating to migrant workers as per the relevant labour laws need to be fully complied with. Enhanced safety measures are required at work places as the protection against hazards or accidents during work. Proper security measures are vital from the perspectives of social security and safety of workers. Besides, migrant workers have to be provided with the adequate safeguards and security devices too.

Electronic linkage of the registration and record-keeping mechanism through suitable E-Governance initiatives of the Government can fetch further benefits in the forms of excellent transparency, elimination of corruption, avoidance of the exploitation by the middle men (like, agents), and after all due compliance of the labour legislations and regulations by the respective stake-holders. As the Government of Kerala has already got an excellent E-Governance system in place and also adequate regulations for protection of the rights of the migrant workers, extending E-Governance initiatives into the realm of migrant workers too would be relatively easy in Kerala state.

As migrant workers, in general, are unaware of their rights and privileges, they should be educated through suitable awareness programmes so as to improve their understanding regarding their rights and privileges. This would enable them to ensure better living and working conditions and minimise the exploitation that they are subjected to. Besides, this would ensure better productivity and efficiency of the migrant workers in due course of time, because better health arising from good working and living conditions are vital for enhanced levels of productivity and efficiency of workers.

A model for sustained growth of construction sector and hence the whole economy using the ideas of alternative economics is suggested hereunder; it may be noted that strict enforcement of social security measures including measures for their education have been highlighted in the proposed model, these being vital for their overall wellbeing by way of their socio-economic empowerment. (Figure 9.5).

Figure 9. 5: Social Security of Informal Migrant Workers: An Alternative Model


SOCIAL SECURITY OF INFORMAL SECTOR MIGRANT
Poor Social Security and also Poor Living and Working Conditions
Wages much Higher in Kerala as against those in their Home States
Lack of Awareness of Migrant Workers about their Rights and Privileges
Migrant Construction Workers, in general, are satisfied with their income; and being unaware of their rights they are not concerned with their Social Security or rights relating to Working and Living Conditions →Need for Alternative Strategies
Ideas of Alternative Economics–Educate the Migrant Construction Workers for Empowering them by making aware of
Alternative ways of Educating Migrants- Awareness camps & Informal education-
Strict Enforcement of Social Security Law
Enhanced Efficiency and Productivity of Migrant Construction Workers, from better Social Security and Awareness of Rights & Privileges–Inclusive and Equitable Labour Market– Sustained Growth of Construction Sector and hence the Economy as a whole.

Source: Developed by the Author

As shown in Figure 9.5, the model suggested seeks to bring about sustained growth of the construction sector and hence the economy as a whole (because of the linkage effects of construction industry and also its other strategic advantages). Strict enforcement of the social security measures as per the relevant laws and simultaneously educating and empowering the migrants, are the vital ingredients of the model suggested as above (Figure 9.5). In recent years, the implementation of MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act, i.e. erstwhile NREGA which was later re-christened by prefixing the name, Mahatma Gandhi) in poorer regions has helped in checking distress migration from states like Bihar, Orissa, Uttar Pradesh, Rajasthan, and Madhya Pradesh. Programmes like MGNREGA which are based on ALMP (Active Labor Market Policy) need to be further scaled up in India, particularly in states like Kerala which have more unemployment problems, partly arising from lower level of industrialization.

Conclusion

From the empirical investigation of unorganized workers of a few housing construction projects located at Ernakulam city it is observed that their socio-economic status is of rather poor. Almost all of them are satisfied with their present jobs as they get higher wages in Kerala compared to their home states. It is noted that majority of them have very low level of education and belong to socially and economically backward classes of the society. Majority of them are middle aged and have experience of less than 10 years; the reason being they do not like to stay permanently in Kerala. Despite contributing heavily to the development of Kerala state, the working and living conditions of these migrant workers are not satisfactory at present. Many of them stay at their workplaces themselves, or are forced to stay in highly congested and ‘slum-like’ premises often arranged by their own contractors or employers. Short term migrant workers are often employed on contractual basis; there is practically no social security or compensation in case of job loss, accident or injury. Except for wages, their working and living conditions

and other social security measures are far from satisfactory. This underlines the relevance of the model suggested.

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10
Migration and Unequal Human Assets in Kerala

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Jayakumar M.S.

The Kerala economy is highly linked to migration. A common understanding is that migration enhances livelihood assets in the migrant households and may reduce or increase asset inequalities in society. Previous studies have not explored the distributions of livelihood assets across various types of households in the context of migration. This study looked into the human asset, a major livelihood asset, in households using five large sample cross sectional surveys conducted in Kerala during1998-2018.

Kerala has a long history of migration. Migration acted as agent for development as well as an option in survival strategy for livelihood. As a part of the ethnographic studies the Centre for Diaspora Studies at the University of Kerala had digitally documented a few distresses migration that happened at the independence time. It was found that most of these migrations that happened at the time was to get rid of poverty in household and only to get food and shelter. After the gulf migration started from early 1970s, migration became a dynamic factor for eradicating poverty at the household, and economic development of state. Gulf countries could provide jobs for both educated and uneducated persons. It enhanced living conditions in their households. Meanwhile, migration from Kerala to other states continued as before, mostly to urbanized cities like Mumbai, Madras, Calcutta and Delhi. All these migrations made tremendous impact on the society and improved livelihood conditions in households. Now, Kerala is witnessing a transformation in her migration, a shift from distress migration to comfort migration. In distress migration, people were forced

to migrate and ready to take any risk in the migration. Whereas in comfort migration, they get opportunities to investigate different options available in places where they want to migrate, and have relatively better decision-making power in the process of migration.

Migration could substantially change the livelihood conditions of households. At the same time, it might also made asset inequalities in the society. In the process of these changes, there were households who gains and there were households who loose. In other words, it can change the inequality conditions in the society. In the planning of development, it is necessary to understand the changing transition of livelihood conditions across different types of households.

Previous studies based on these surveys examined the socio-economic and demographic characteristics of emigrants and the socio-economic impact of emigration from Kerala. Estimates are also available for remittances, number of emigrants, return migrants and investments.

However, none of these studies have explored the extent of change of livelihood assets in the emigrant households in relation to the non-migrant households in the state. It is a general conception that the livelihood assets possessed by the Non-Resident Keralite (NRK) comprising of emigrants and return emigrant households are much better than that of the non-migrant population. NRKs highly invest in purchase or construction of houses. Their possession of automobiles and consumer durables are much higher in quantity and quality. This does not imply that all the livelihood assets (for instance assets such as health, education, social networks) of emigrant's households are better than the non-migrant's households. Again, it is possible that spatial disparities (districts) may exist in this regard.

The education and health aspects of the members in migrant and non-migrant households were little studied in Kerala context. Thus, from a policy perspective it is necessary to understand the asset inequality in relation to migration. The study of inequalities of human asset in household in relation to migration

is highly relevant in alternative economics. In this context, the present study looks into the human assets among the migrant and non-migrant households in Kerala using the Kerala Migration Surveys. It also attempts to examine the changing inequality in human assets in both migrant and non-migrant households in the state over the past two decades.

Specifically, this study has the following objectives: 1) To examine the human assets among the migrant, and non-migrant households in Kerala, 2) To explore the dynamics of human asset differentials in both migrant and non-migrant households over the past two decades, and 3) To find out the spatial dimensions of human assets

Methods and Materials

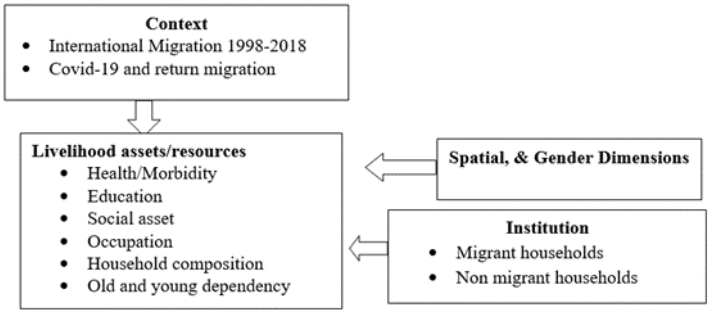
Data: The Kerala Migration Surveys (KMS) conducted by the Centre for Development Studies (CDS) in 1998, 2003, 2008, 2013, and 2018 are a pool of cross-sectional data with a lot of development indictors covering all districts in the state. These surveys revealed that considerable inter-district variation exist in the number and prevalence rates of emigration and its return flows across districts. Wayanad and Idukki districts are having a low incidence of emigration (less than 3 percent of households) and Malappuram, Kannur and Kasargod lead in high level of incidence of emigration (30 to 50 percent households). Data from the Kerala Migration Survey (KMS) conducted in 1998, 2003, 2008, 2013, and 2018 by the Centre for Development Studies, Thiruvananthapuram, Kerala were used in the study.

Conceptual Framework:

The conceptual framework used for this study is given in Figure 10.1. Here, we visualize that international migration has significant impact on household livelihood assets. The livelihood assets can be classified into human capital, physical capital, financial capital, social capital and natural capital. The detailed description of each of these capitals can be seen elsewhere like studies of Ellis (Ellis, 2000). In this study, we emphasize human capital and social capital alone. It is a well-accepted fact that the other categories of livelihood assets

(financial, natural and physical assets) are more among the migrant households than the non-migrant households. We are not sure that health of migrant households is better than the non-migrant households. It can be verified only after examining the morbidity rates of both households. Anecdotal evidences from the field suggest that non-migrant households have relatively higher levels of morbidity rates. The situation may vary across districts and socio-economic groups.

Figure 10.1 Conceptual Framework



Source: Own formation

Concepts and Definitions

The operational definition of each indicator is as follows.

Migrant Household: Census of India has defined a 'household' as a group of persons who normally live together and take their meals from a common kitchen unless the exigencies of work prevent any of the them from doing so. Persons in a households may be related or unrelated or a mix of both. In a few situations, the definitions may be slightly relaxed. For example, example a person living alone in a census house whether cooking or not cooking meals is treated as a household. Similarly, if husband and wife or a group of related persons are living together in a census house but not cooking their meals is also constitute a normal household. The definitions of terms used in Kerala Migration Surveys are mostly taken from the definition of Census of India.

In KMS Survey migrant household is a household in which any one of the members is a migrant at the time of survey. The Survey classify all members into four categories as emigrant, return emigrant, out migrant, return migrant and non-migrant.

Kerala migration survey classifies migrants into emigrants (EMI), return emigrants (REM), out-migrants (OMI) and return out migrants (ROM) as follows.

Emigrants (EMI) or usual residents of a household who had migrated out of Kerala and were living outside India at the time of survey

Return Emigrants(REM) or usual members of a household who had returned to Kerala after living outside India for a year or more; or for a lesser period, if the stay outside was for the purpose of studies or looking for a job,

Out-Migrants(OMI) or usual residents of a household who migrated out of Kerala and were living outside Kerala but within India at the time of survey, and,

Return Out-Migrants(ROM) or usual members of a household who had returned to Kerala after living outside Kerala but within India for a year or more; or for a lesser period, if the stay was for the purpose of studies or looking for a job.

Livelihood Asset:

A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living.

Livelihood assets refer to the resource base of the households. Generally, assets can be classified into human assets, physical assets, natural assets, financial assets and social assets. The following are some of the indicators of each of these assets.

Human Asset: household members, active labour, education, knowledge and skills

Physical Asset: livestock, equipment, vehicles, houses, irrigation pumps,

Natural Asset: access to land, forests, water, grazing, fishing, wild products and biodiversity

Financial Asset: savings/debt, gold/jewellery, income, credit, insurance

Social Asset: kin networks, group membership, socio-political voice and influence

The analyses were carried out in the following way. At first, all households in the survey were classified into two groups; migrant households and non-migrant households. Migrant households had the breakup of emigrant households, outmigrant households, return emigrant households, return out migrant households. Then we examined the levels of livelihood assets (here it is human asset) in these kinds of households. This exercise was carried out for all the rounds of migration survey to understand the changing dynamics of livelihood assets in both the migrant and non-migrant households.

Analysis

Transition in Higher Education

Are the members in migrant households ahead or behind in education compared to others? What kind of transition happened in the members of different types of households over the last twenty years in acquiring higher education? These questions were explored from an alternative economic perspective. It is widely held that those who are better in formal education always try to get secured job in the state. Among the educated, those who are not able to secure the desired job, most probably migrate for their livelihood. Poverty also leads to migration as a push factor for a large chunk of people. Earlier, the lesser educated and even uneducated too migrated to other states and abroad. This made a general impression that those who are poor in livelihood resources usually opt for migration.

Evidences from KMS surveys show that emigrant households have relatively better education than non-emigrant ones. Over the last two decades, emigration and human resources are positively associated at the household level. In other words, the

KMS five rounds shows that emigrant households are relatively better in securing graduation and above compared to the non-migrant households.

Table 10.1 shows the share of degree holders in various types of households in Kerala from 1998 to 2018. It has been noticed that in 1998, the share of degree holders in emigrant households was 6.6 percent. In other words, among the individuals in the emigrant households who were aged 20 years or above, 6.6 percent had a degree. In case of non-migrant households, the corresponding figure was only 6.1 percent.

After a decade (in 2008), the share of degree holders in the migrant households raised to 9.8 percent whereas in the non-migrant household it was only 8.1 percent. It implies that the increase in the share of degree holders were more in the migrant households than the non-migrant households. The trend continued ending up in increasing gap in the next decade as in 2018 the share of degree holders in migrant household was 21.3 percent against 19.6 percent in non-migrant household.

Table 10.1 Share of Degree Holders in Various Households in Kerala, 1998-2018(%)

Type of household	Sex	Year				
		1998	2003	2008	2013	2018
Emigrant (EMI)	Male	6.5	10.9	9.6	14.9	20.5
	Female	6.6	10.5	9.8	15.9	21.8
	Total	6.6	10.7	9.8	15.5	21.3
Return Emigrant (REM)	Male	5.5	8.5	7.8	11.8	14.4
	Female	6.8	9.0	10.1	15.2	18.5
	Total	6.1	8.8	8.9	13.5	16.4
Out migrant (OMI)	Male	9.9	13.5	13.0	16.8	26.7
	Female	6.4	12.6	11.5	18.4	27.9
	Total	7.9	13.0	12.1	17.7	27.4
Return out migrant (ROM)	Male	13.3	14.2	11.8	16.8	21.5
	Female	11.5	12.2	11.6	20.2	24.8
	Total	12.5	13.2	11.7	18.5	23.1

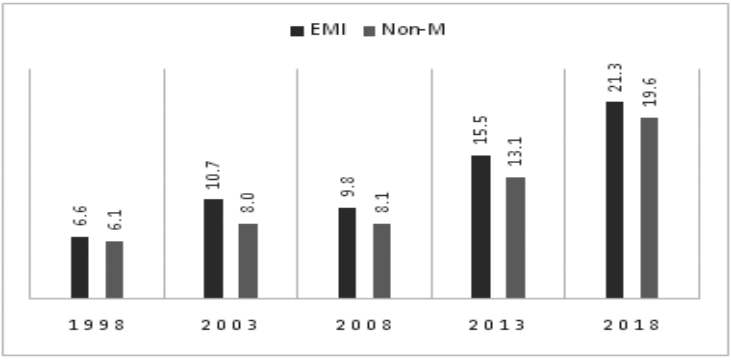
Non-Migrant	Male	6.8	8.2	8.5	12.7	19.2
	Female	5.5	7.9	7.7	13.4	19.9
	Total	6.1	8.0	8.1	13.1	19.6
Total	Male	7.4	9.4	9.0	13.3	19.0
	Female	6.4	9.2	8.7	14.6	20.4
	Total	6.9	9.3	8.8	14.0	19.8

Note: Computed for individuals above age 20 years; Computed by the authors

Source of Data: Kerala Migration Survey, 1998. 2003, 2008, 2013 and 2018

The progress of gaining formal higher education, over the last twenty years, was more in the emigrant households than the non-emigrant households in the state (Figure 10.2). This could also be viewed as a positive impact of international migration on higher education particularly in a situation in which the education sector becoming more and more expensive and only a few can afford it. The emigrants realize the significance of better education in getting better employment and make more investment in building human assets for their dears. Meanwhile, the level of education, though relatively low, in the non-emigrant households can be viewed in a different way in terms of nesting and social actions. Those non-migrants having interactions with migrant households understand the importance of education for better livelihoods, having a tendency to imitate them in acquiring human assets, by sacrificing the other types of resources. However, such endures are only a few in the state since the other livelihood assets unequal across households and family members have diverse aspiration.

Figure 10.2 Share of Degree Holders in Households, 1998-2018

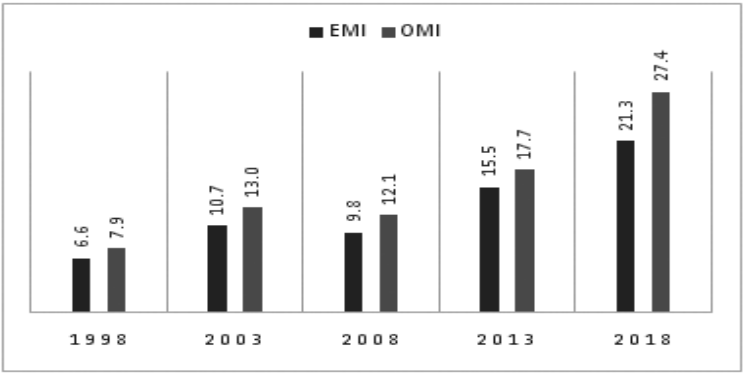


Source of Data: Kerala Migration Survey, 1998, 2003, 2008, 2013, and 2018

Note: EMI=Emigrants, Non-M= Non migrants

A comparison between emigrant and outmigrant households may be interesting as the outmigrant households have better human resources than that of the international migrant households. Also, the gap between them increased significantly over the period of twenty years. In 1998, the gap was only 1.3 points, that rose upto 6.1 points in 2018 (Figure 10.3).

Figure 10.3 Share of Degree Holders in Households, 1998-2018



Source of Data: Kerala Migration Survey, 1998, 2003, 2008, 2013, and 2018

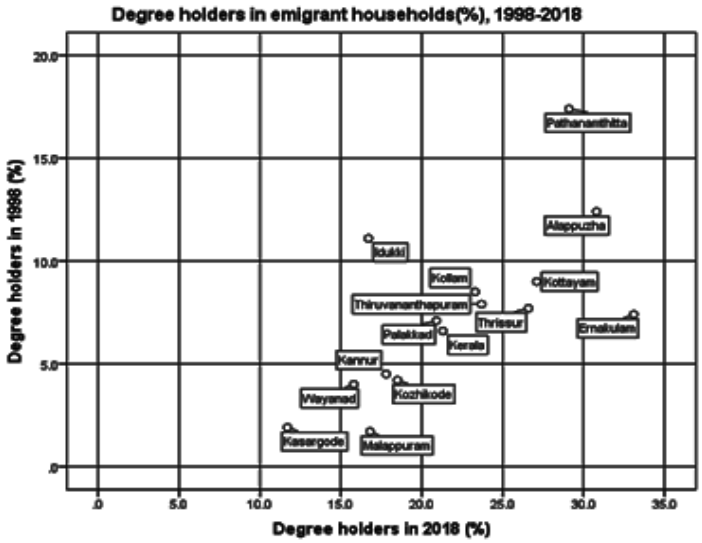
Note: EMI=Emigrants, OMI= Out migrants

The human resource gap between out-migrant and non-migrant households is the highest compared to that between other types of households.

Spatial Dimensions

How are the human resources spatially distributed in Kerala? What kind of transition happened in human resource across the districts in the last twenty years? Figure 10.3 shows the relative position of districts in terms of their transition in the level of degree holders in the emigrant households from 1998 to 2018. It can be seen that Pathanamthitta had the highest percentage of degree holders in 1998. But in 2018, Ernakulam which was far behind Pathanamthitta in this regard, came to the top most position in the level of human resource. Similarly, Alappuzha district which was behind Pathanamthitta could improve their relative level of this human resource and occupied the second position in the state.

Figure 10.4 Degree Holders in Emigrant Households (%), 1998-2018



Source of Data: Kerala Migration Survey, 1998, and 2018

Figure 10.4 shows the level of improvement in human resources in emigrant households across the districts and in the state in general. The human resources in the emigrant households are far behind in the northern districts than in other districts. Ernakulam, Alapuzha, Pathanamthitta, and Trissur are far ahead in the level of human resources than they were twenty years ago. Thiruvananthapuram and Kollam were better than Ernakulam in 1998, but in 2018, they became far behind Ernakulam.

Another remarkable fact is that Idukki district shows the least change in human resources over the last two decades. However, it fared far better than Kasargod, Wayanad and even Malappuram.

Figure 10.5 Degree holders in emigrant households (%) over the period 1998-2018



Source of Data: Kerala Migration Survey, 1998, and 2018

In the non-migrant households too, the same trend can be observed, though the levels are relatively low in the respective districts. Figure

10.5 shows the changes in the share of degree holders in the non-migrant households over the last twenty years. Ernakulam and Kottayam show relatively higher levels of human resources compared to other districts. Unlike in the emigrant households, Alapuzha is far behind to Kottayam in the share of degree holders. In both emigrant and non-migrant households, Kasargod lags behind in higher education that requires special attention from policy makers.

Figure 10.6 Degree holders in non-migrant households (%) over the period 1998-2018



Source of Data: Kerala Migration Survey, 1998, and 2018

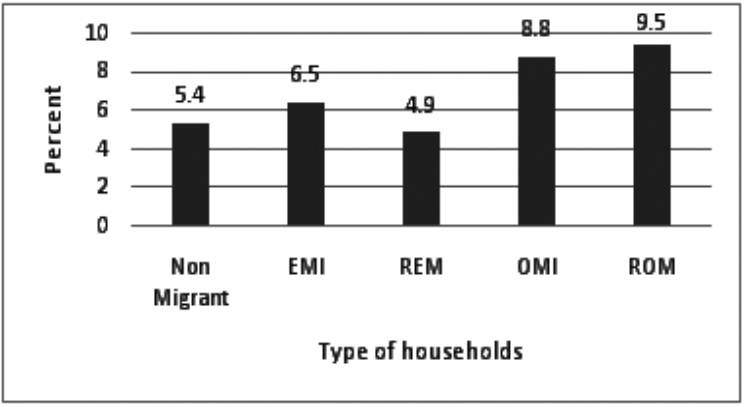
Professional Courses and Migration

Figure 10.6 shows the percentage of professional degree holders across various types of households in Kerala. It can be seen that compared to non-migrant households, the share of professionals was more in the emigrant households, and out migrants. In the 1998 survey, this information was not collected, therefore, it is not possible to understand the situation 20 years ago. Usually,

those who migrate prefer professional courses since it help getting better jobs and better income. There is a high demand for Indian doctors and engineers abroad. Indian workers are more creative and hardworking, especially abroad.

Gender difference is absent in acquiring professional education as the shares of both males and females are more or less same.

Figure 10.7 Professionals in different type of households, 2018



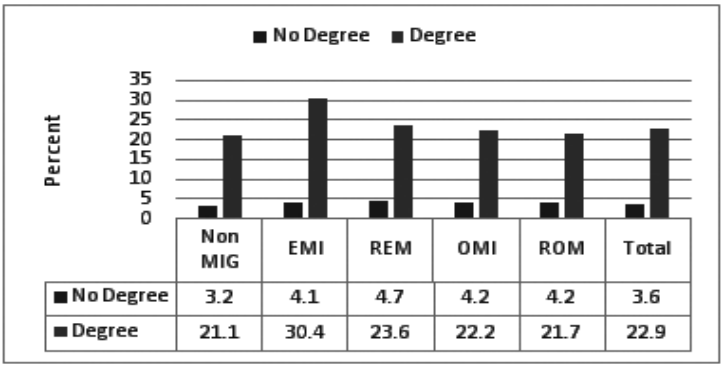
Source of Data: Kerala Migration Survey, 2018

Note: EMI: Emigrant; REM: Return Emigrant, OMI: Out migrant, ROM: Return out migrant

Education and Economic Activity

The patterns of economic activity among the degree holders changed over the last twenty years. As per the 1998 KMS survey, among the degree holders aged 20 years, 22.9 percent were job seekers. In that period, among those who did not have a degree, the percentage of job seekers were very less, 3.6 percent (Figure 10.7). It is also found that job seekers were highest in emigrant households. In 1998, among the degree holders in emigrant households, around one in every three were searching for a job. This percentage was high compared to that in other types of households. Percentage of job seekers was relatively low in the non-migrant households.

Figure 10.8 Job Seekers in Kerala by Education, 1998



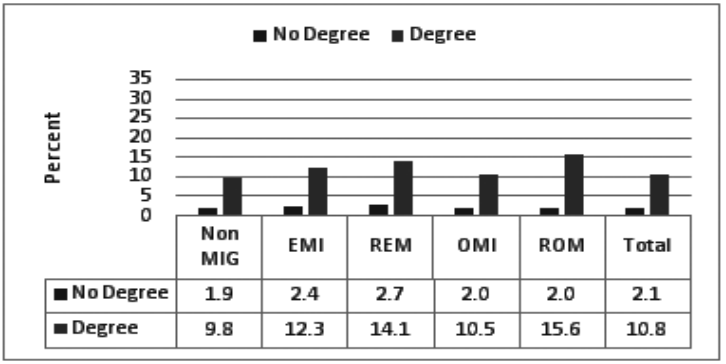
	Non MIG	EMI	REM	OMI	ROM	Total
No Degree	3.2	4.1	4.7	4.2	4.2	3.6
Degree	21.1	30.4	23.6	22.2	21.7	22.9

Source of Data: Kerala Migration Survey, 1998

Note: EMI: Emigrant; REM: Return Emigrant, OMI: Out migrant, ROM: Return out migrant, Non-M= Non migrants

After twenty years, the share of job seekers in the households decreased substantially irrespective of level of education (Figure 10.8). As of the case of 1998, the job seekers were more among degree holders in the 2018 survey. Job seekers are more among the return migrant households than among others. The least number of job seekers can be found in the non-migrant households.

Figure 10.9 Job seekers in Kerala by Education, 2018



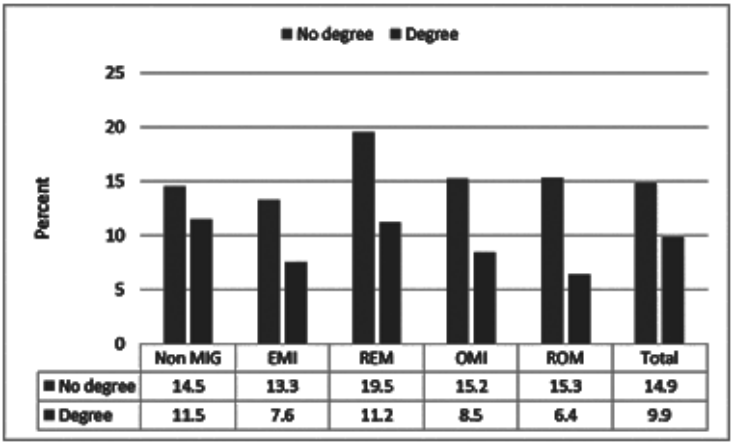
	Non MIG	EMI	REM	OMI	ROM	Total
No Degree	1.9	2.4	2.7	2.0	2.0	2.1
Degree	9.8	12.3	14.1	10.5	15.6	10.8

Source of Data: Kerala Migration Survey, 2018

Note: EMI: Emigrant; REM: Return Emigrant, OMI: Out migrant, ROM: Return out migrant, Non-MIG= Non migrants

Self-employment is a major economic activity for considerable number of persons in Kerala. It was found in the 1998 survey that among those aged 20 years, around 14.6 percent were self-employed. Self-employment as a major economic activity was more among the non-degree holders. Among the non-degree holders, 14.9 percent work in own company, whereas only 9.9 percent of the degree holders were in self-employment (Figure 9). Self-employment is less likely an option for the emigrant households where, 7.6 percent of the degree holders and 13.3 percent of the non-degree holders engaged on self-employment. Irrespective of level of education, non-migrant households engaged more in self-employment than the migrant households - whether emigrant or out migrant.

Figure 10.10 Self-employment in Kerala by Education, 1998



	Non MIG	EMI	REM	OMI	ROM	Total
No degree	14.5	13.3	19.5	15.2	15.3	14.9
Degree	11.5	7.6	11.2	8.5	6.4	9.9

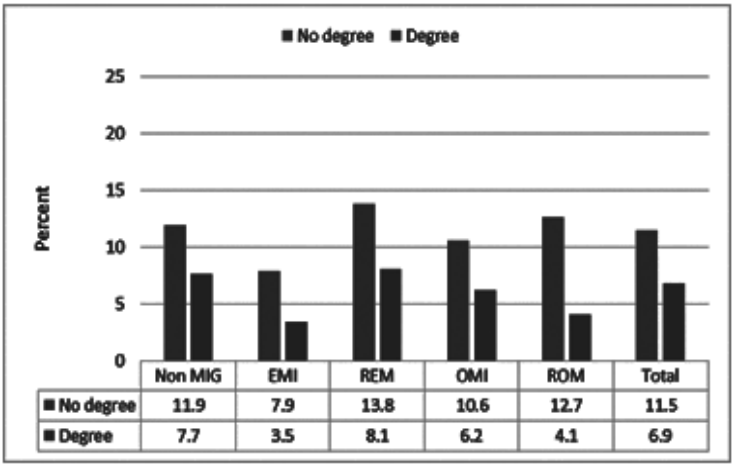
Source of Data: Kerala Migration Survey, 1998

Note: EMI: Emigrant; REM: Return Emigrant, OMI: Out migrant, ROM: Return out migrant, Non-MIG= Non migrants

Over the last twenty years, the share of self-employment as a major economic activity has decreased irrespective of the type of households. Figure 10.10 shows the percentage of self-employed persons in Kerala by type of households and

education. In 1998, self-employers are more among the non-degree holders than degree holders. The share of self-employed persons in emigrant households are relatively low compared to other households. What usually expected is that emigrants have better income and their family members are more likely to engaged in start-ups. It is not happened in Kerala as we have seen in the evidences of both the surveys.

Figure 10.11 Self-employment in Kerala by Education, 2018



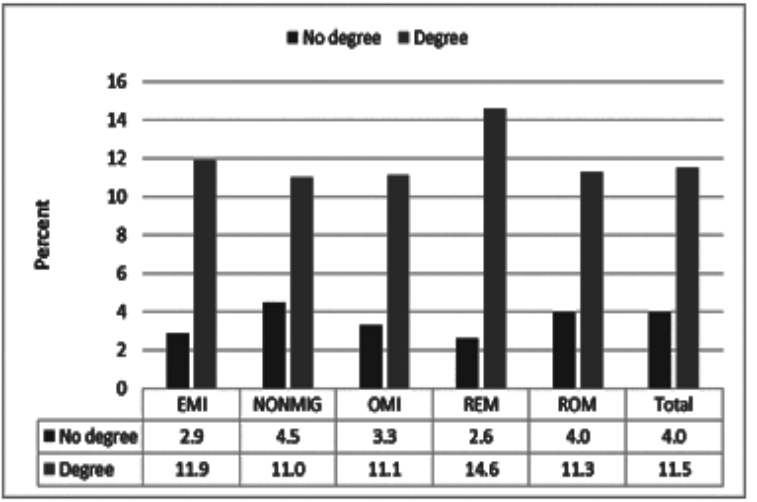
	Non MIG	EMI	REM	OMI	ROM	Total
No degree	11.9	7.9	13.8	10.6	12.7	11.5
Degree	7.7	3.5	8.1	6.2	4.1	6.9

Source of Data: Kerala Migration Survey, 2018

Note: EMI: Emigrant; REM: Return Emigrant, OMI: Out migrant, ROM: Return out migrant, Non-MIG= Non migrants

Private sector is slowly nourishing in the state. In 1998, around 11.5 percent of the degree holders engaged in private sector as main sources of income. Among the non- degree holders, the share of people engaged in private sector was 4.0 percent. Among the degree holders of emigrant households, 11.9 percent worked in private sector, which is relatively higher than that of the degree holders in non-migrant households. Unlike the case of self-employment, more educated engaged in the private sector than the non-degree holders.

Figure 10.12 Employment in private sector in Kerala by Education 1998



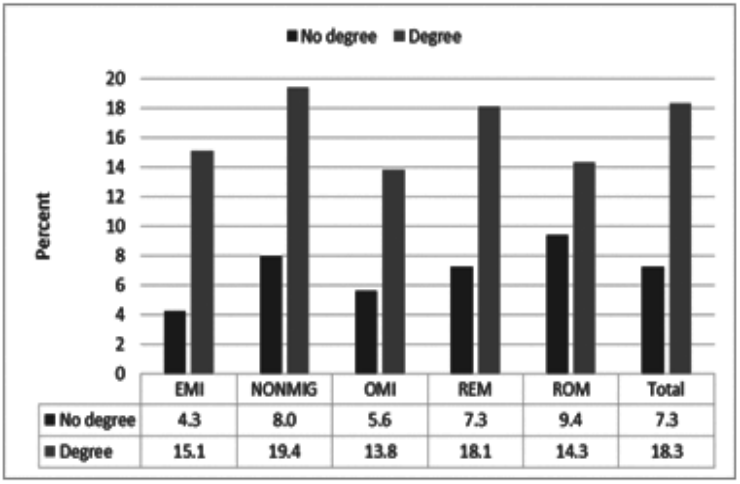
	EMI	NONMIG	OMI	REM	ROM	Total
No degree	2.9	4.5	3.3	2.6	4.0	4.0
Degree	11.9	11.0	11.1	14.6	11.3	11.5

Source of Data: Kerala Migration Survey, 1998

Note: EMI: Emigrant; REM: Return Emigrant, OMI: Out migrant, ROM: Return out migrant, NONMIG= Non migrants

Figure 10.12 shows the share of people engaged in the private sector in 2018. It is clear that in all types of household, the share of people engaged in the private sector increased substantially over the last two decades. Among the degree holders, the share of persons engaged in the private sector reached 18.3 percent in 2018 from 11.5 percent in 1998. Similarly, in the case of non-degree holders, the share of those who engaged in private sector was only 4 percent in 1998 that rose to 7.3 percent in 2018. This indicates that private sector is getting more prominence as a main source of economic activity over the last twenty years.

Figure 10.13 Employment in Private Sector in Kerala by Education 2018



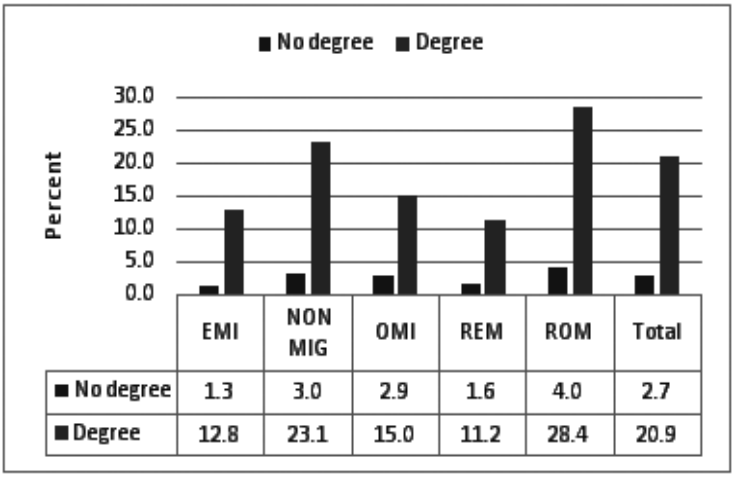
	EMI	NONMIG	OMI	REM	ROM	Total
No degree	4.3	8.0	5.6	7.3	9.4	7.3
Degree	15.1	19.4	13.8	18.1	14.3	18.3

Source of Data: Kerala Migration Survey, 2018

Note: EMI: Emigrant; REM: Return Emigrant, OMI: Out migrant, ROM: Return out migrant, NONMIG= Non migrants

The persons engaged in the state or central government employment were more in 1998. Among the degree holders, 20.9 percent worked in government sector. The share of people engaged in government jobs among the non-degree holders was only 2.7 percent (Figure 10.13). In fact, the share of people engaged in the government job was higher in non-migrant households as compared to emigrant households or out migrant households.

Figure 10.14 Employed in State or Central Government by Education 1998



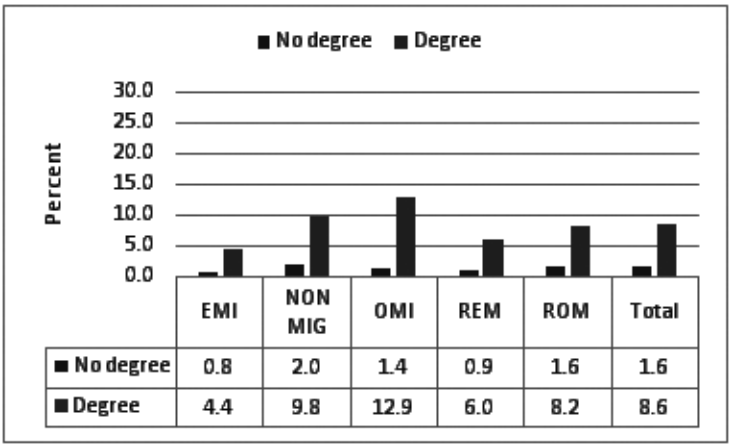
	EMI	NON MIG	OMI	REM	ROM	Total
No degree	1.3	3.0	2.9	1.6	4.0	2.7
Degree	12.8	23.1	15.0	11.2	28.4	20.9

Source of Data: Kerala Migration Survey, 1998

Note: EMI: Emigrant; REM: Return Emigrant, OMI: Out migrant, ROM: Return out migrant, NONMIG= Non migrants

Over the twenty years, the people worked in the public sector has come down substantially irrespective of their level of education and type of households. Figure 10.15 shows the percentage of persons worked in the state or central government jobs in 2018. Only 8.6 percent of the degree holders have jobs in government sector. The percentage of degree holders in the outmigrant households, who had government jobs were relatively higher than that in other types of households.

Figure 10.15 Employed in State or Central Government by Education 2018



	EMI	NON MIG	OMI	REM	ROM	Total
No degree	0.8	2.0	1.4	0.9	1.6	1.6
Degree	4.4	9.8	12.9	6.0	8.2	8.6

Source of Data: Kerala Migration Survey, 2018

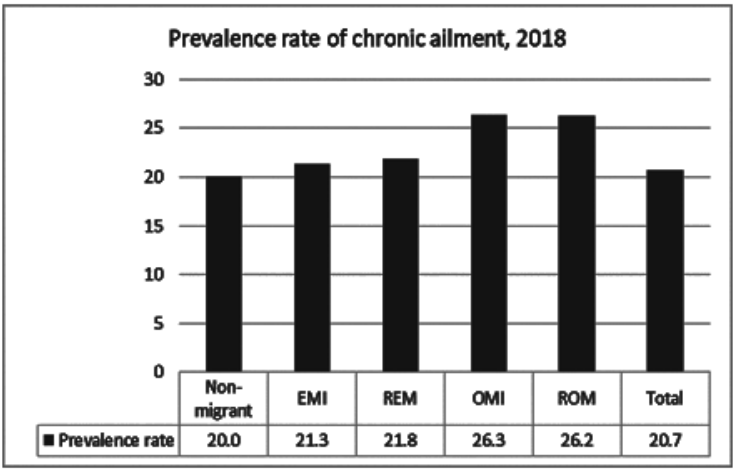
Note: EMI: Emigrant; REM: Return Emigrant, OMI: Out migrant, ROM: Return out migrant, NONMIG= Non migrants

In short, over the last twenty years, a shift in economic activity from Government sector to Private sector is visible in Kerala irrespective of the level of education and type of households.

Health Asset

In this analysis, presence of a chronic disease is taken as an indicator of poor health. So, high prevalence rate in chronic disease means a low level of human asset in the household. Figure 10.16 shows the prevalence rate of chronic ailment in different types of households in Kerala. It was noticed that roughly one in every five individuals in Kerala had a chronic disease in 2018. Non-migrant households had the lowest level of prevalence rate with 20 percent. The emigrant households are better than the out-migrant households in the rates of chronic diseases. In emigrant households, around 21.3 percent had chronic diseases whereas out-migrant households higher level of prevalence (26.3 percent), the highest percentage among the types of household examined.

Figure 10.16 Prevalence rate of chronic ailment in Kerala by type of household, 2018(%)



Source of Data: Kerala Migration Survey, 2018

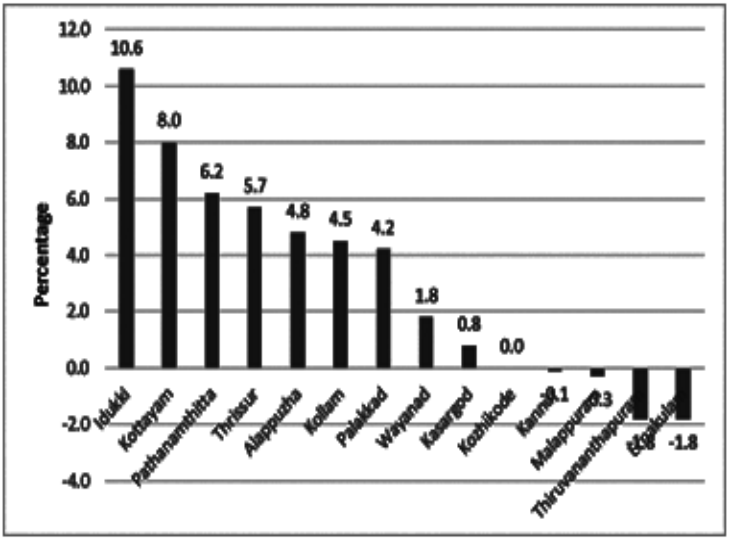
Note: EMI: Emigrant; REM: Return Emigrant, OMI: Out migrant, ROM: Return out migrant, Non-M= Non migrants

Spatial Dimension

Generally, the prevalence rate shows high variation across districts. The highest prevalence of chronic diseases was in Pathanamthitta (28.2) followed by Alappuzha (27.2) and Thiruvananthapuram (24.6). The lowest level was in Wayanad (14.3), Kasargode (14.8) and Palakkad (16.6).

The prevalence rate of chronic disease widely varies across districts, as well as between migrant, and non-migrant households. Figure 10.17 shows the discrepancies in prevalence rate of chronic disease between non-migrant and migrant households in Kerala across the districts. The highest level of difference was found in Idukki (10.6 point) followed by Kottayam (8 point) and Pathanamthitta (6.2 point). In these districts, the health assets of non-migrant households are better than that of the emigrant households. Kozhikode reported the same level of prevalence rate from both non-migrant and emigrant households.

Figure 10.17 Difference in prevalence rate (%) of chronic diseases between non-migrant and migrant households in Kerala by district, 2018



Source of Data: Kerala Migration Survey, 2018

In the four districts- namely Kannur, Malappuram, Thiruvananthapuram and Ernakulam – emigrant households have less disease prevalence rate compared to that in the non-migrant households.

However, generally, as found in Table 10.2, the type of households like returned emigrant households, out-migrant households, and return migrant households have relatively high level of disease prevalence rate compared to the non-migrant households.

Table 10.2 Prevalence Rate of Chronic Diseases(%) in Kerala by District and Types of Households, 2018

District	Household type					Total
	Non-migrant	EMI	REM	OMI	ROM	
Pathanamthitta	26.0	32.2	35.0	35.1	24.6	28.2
Alappuzha	25.8	30.6	26.0	38.8	27.8	27.2
Thiruvananthapuram	24.9	23.1	23.3	38.0	24.0	24.6
Kottayam	22.4	30.4	25.1	31.5	28.2	23.8
Thrissur	21.6	27.3	26.3	23.8	31.2	23.1
Kollam	21.0	25.5	24.6	21.4	27.8	22.9
Idukki	20.2	30.8	30.0	27.8	31.6	21.3
Kozhikode	18.7	18.7	19.5	21.3	21.3	19.0
Ernakulam	18.7	16.9	17.4	29.7	35.7	18.7
Malappuram	17.2	16.9	19.5	19.8	33.3	17.7
Kannur	16.8	16.7	18.8	22.5	18.5	17.3
Palakkad	15.7	19.9	14.6	26.8	31.0	16.6
Kasargod	13.8	14.6	18.0	14.0	11.4	14.8
Wayanad	13.9	15.7	15.7	26.7	NA	14.3
Total	20.0	21.3	21.8	26.3	26.2	20.7

Source of Data: Kerala Migration Survey, 2018

Note: EMI: Emigrant; REM: Return Emigrant, OMI: Out migrant, ROM: Return out migrant

Gender Dimension

Table 10.3 shows the prevalence rate of chronic diseases among males and females in the different types of households in the state in 2018. In the non-migrant households, irrespective of the districts, females have higher level of morbidity than males.

Table 10.3 Prevalence Rate of Chronic Diseases (%) Across Gender in Kerala by the Types of Households, 2018

	Male						Female					
	Household type						Household type					
	Non-migrant	EMI	REM	OMI	ROM	Total	Non migrant	EMI	REM	OMI	ROM	Total
Alappuzha	22.1	31.8	22.8	36.4	24.6	24.2	29.1	29.8	29.0	40.7	30.9	29.8
Ernakulam	17.5	18.8	13.3	31.6	25.0	17.5	19.8	15.6	21.3	27.8	50.0	19.8
Idukki	19.6	27.4	32.0	33.3	10.0	20.5	20.9	34.5	28.0	20.0	5.6	22.1
Kannur	15.2	13.8	17.2	24.1	20.0	15.7	18.3	18.9	20.5	21.2	17.1	18.8
Kasargod	13.7	15.7	18.3	14.3	10.5	14.9	14.0	13.9	17.7	13.7	12.5	14.7
Kollam	18.1	26.5	26.5	29.5	29.4	21.9	23.8	24.9	22.7	16.4	26.3	23.7
Kottayam	21.5	31.2	25.9	33.3	35.0	23.2	23.4	29.8	24.4	30.0	21.1	24.4
Kozhikode	18.2	19.8	19.5	21.8	18.4	18.8	19.2	18.0	19.5	20.9	23.8	19.1
Malappuram	15.1	16.9	22.0	17.1	28.6	17.4	19.3	17.0	16.9	22.2	37.5	17.9
Palakkad	15.3	21.2	17.2	30.6	34.5	16.7	16.2	19.0	12.0	23.9	27.6	16.6
Pathanamthitta	23.5	38.8	35.1	34.4	14.3	26.9	28.3	28.3	34.9	35.6	34.5	29.3
Thiruvananthapuram	23.5	21.4	23.3	41.5	38.5	23.6	26.2	24.2	23.3	35.6	8.3	25.5
Thrissur	19.5	32.3	23.6	30.3	27.9	22.0	23.4	24.0	29.1	20.6	35.3	24.2
Wayanad	11.5	56	9.0	16.7	-	123	16.4	5.7	2.8	3.3	-	6.3
Total	18.4	21.8	22.2	28.0	24.4	19.7	21.5	21.0	21.4	25.1	28.0	21.5

Note: Computed by authors

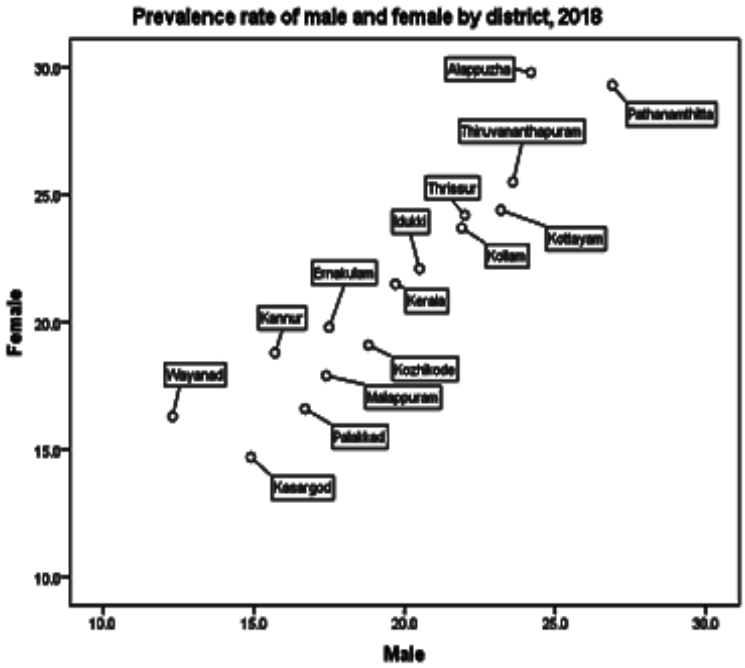
Source of Data: Kerala Migration Survey, 2018

Note: EMI: Emigrant; REM: Return Emigrant, OMI: Out migrant, ROM: Return out migrant

The spatial dimensions of prevalence rate in Kerala shows that the districts in northern Kerala have relatively lower levels of morbidity compared to the districts in other regions. Figure 10.18 shows the prevalence rate of chronic diseases in male and female by district. It shows the relative position of districts in terms of morbidity and gender. It is clear from the figure that districts Pathanamthitta, Alappuzha, Thriruvananthapuram, Trissur, Kottayam, Kollam and Idukki had higher level of both male and female morbidity rate compared to the state average.

The districts, Wayanad and Kasargod show the lowest levels of morbidity rate among the districts.

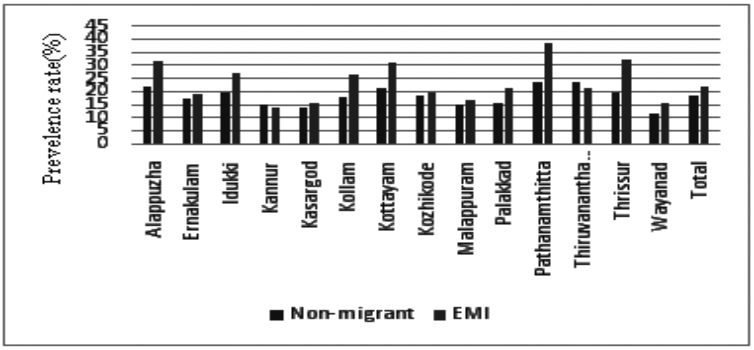
Figure 10.18 Prevalence Rate of Chronic Diseases(%) in Males and females by Districts, 2018



Source of Data: Kerala Migration Survey, 2018

In general, the males in emigrant households show higher prevalence rate of chronic morbidity than those in non-migrant households.

Figure 10.19 Prevalence Rate (%) of Chronic Diseases Among Males in Kerala by district 2018

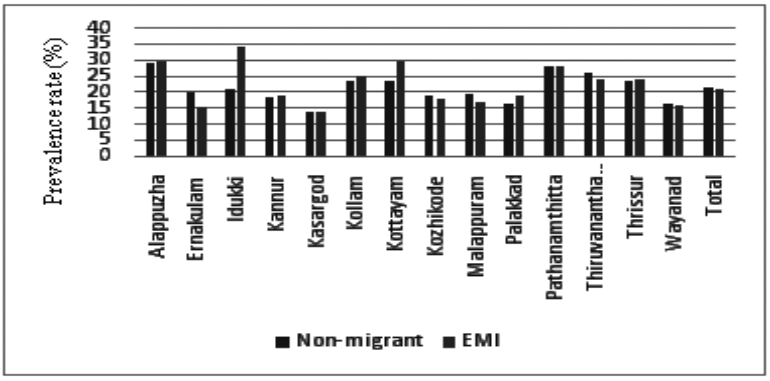


Source of Data: Kerala Migration Survey, 2018

Note: EMI: Emigrant;

Among the females, the patterns of morbidity rate were not same as of the males. In Idukki, prevalence rate was more among the emigrant households than the non-migrant households. But in Ernakulam, non-migrant households had higher level of chronic morbidity rate compared to the emigrant households (figure 10.20).

Figure 10.20 Prevalence Rate of Chronic Diseases among Females in Kerala by District 2018



Source of Data: Kerala Migration Survey, 2018

Note: EMI: Emigrant;

Health Seeking Behaviour

Table 10.4 shows the relation between gender and type of households and the place of consultation for chronic diseases. Majority of people used private health care institutions for health seeking. Here in Kerala, around 59 percent of the people sought treatment in private health care institutions for their chronic diseases. The share of people who sought treatment from private health care sector varies significantly across households classified in terms of migration status. In case of public health care institutions, non-migrant households were more ahead in use as compared to other types of households. In addition, within non-migrant households, the share of females used in public hospitals is higher than that of males. But in the case of emigrant or outmigrant households, the proportion of males sought treatment in public hospital were higher than that of females. It must be noted that level of use in government institution were lower compared to that in private sector, even it is working as nonprofit and cost free.

Table 10.4 Place of Consultation by Gender and Type of Household, 2018

Place of consultation	Household type (%)					Total
	Non-migrant	EMI	REM	OMI	ROM	
Male						
Government Hospital	35.4	26.5	29.6	22.5	20.8	32.0
Private hospital	56.2	63.7	65.6	67.5	70.8	60.0
PHC	4.0	2.9	3.2	5.0	0.0	3.6
Dispensary	1.7	2.9	0.8	2.5	4.2	1.8
Pharmacy	0.4	0.4	0.0	2.5	0.0	0.4
Quacks	0.1	0.0	0.0	0.0	0.0	0.1
Paramedical persons	0.4	0.0	0.0	0.0	0.0	0.2
Others	1.7	3.7	0.8	0.0	4.2	1.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

Female						
Government hospital	38.0	20.9	30.8	21.7	43.8	33.0
Private hospital	53.4	70.1	59.8	63.3	40.6	57.8
PHC	5.2	3.9	5.6	8.3	9.4	5.2
Dispensary	2.3	2.9	0.9	3.3	3.1	2.2
Pharmacy	0.3	0.6	0.4	1.7	3.1	0.5
Quacks	0.0	0.3	0.0	0.0	0.0	0.1
Paramedical persons	0.1	0.0	0.4	0.0	0.0	0.1
Others	0.8	1.3	2.1	1.7	0.0	1.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Combined						
Government hospital	36.8	23.4	30.1	22.0	33.9	32.5
Private hospital	54.6	67.3	62.8	65.0	53.6	58.8
PHC	4.7	3.4	4.4	7.0	5.4	4.5
Dispensary	2.0	2.9	0.8	3.0	3.6	2.1
Pharmacy	0.4	0.5	0.2	2.0	1.8	0.5
Quacks	0.1	0.2	0.0	0.0	0.0	0.1
Paramedical persons	0.2	0.0	0.2	0.0	0.0	0.2
Others	1.2	2.3	1.5	1.0	1.8	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

Note: Computed by authors; EMI: Emigrant; REM: Return Emigrant, OMI: Out migrant, ROM: Return out migrant

Source of Data: Kerala Migration Survey, 2018

Table 10.5 shows the percentage of people with chronic diseases but did not consult any doctors or health care providers. Around 1.9 percent of the chronic persons not consulted any health care persons for their diseases. The share is more among males (2.1 percent) than females (1.7 percent). The non-migrant household had a relatively higher level of aversion to consultation as compared to that in emigrant and out migrant households.

Table 10.5 Share of people without consultation (%) by gender and type of households, 2018

Sex	Household type					Total
	Non-migrant	EMI	REM	OMI	ROM	
Male	2.1	1.6	2.4	2.4	4.2	2.1
Female	1.7	1.5	2.9	0.0	0.0	1.7
Combined	1.8	1.6	2.6	1.0	1.8	1.9

Note: Computed by authors; EMI: Emigrant; REM: Return Emigrant, OMI: Out migrant, ROM: Return out migrant

Source of Data: Kerala Migration Survey, 2018

Health Expenditure

Table 10.6 shows the average monthly medical expenditure of members of different types of households across districts. A person with chronic disease spends Rs. 1319 a month. Monthly medical expenditure is most in Pathanamthitta and least in Alappuzha. Members in return emigrant households and emigrant households had more monthly medical expenditure than non-migrant households.

Table 10.6 Monthly Medical Expenses (Rs/month) in Different Types of Households, 2018

district	Mean (Rs)						N					
	Household type						Household type					
	Non-migrant	EMI	REM	OMI	ROM	Total	Non-migrant	EMI	REM	OMI	ROM	Total
Alappuzha	439	496	517	465	524	466	514	158	114	59	58	903
Ernakulam	1524	2084	1205	6111	1875	1579	944	35	22	9	4	1014
Idukki	1436	1387	1677	1438	882	1433	345	35	13	8	5	406
Kannur	990	1211	1227	1106	625	1075	408	172	95	47	10	732
Kasargod	1266	1788	1760	896	225	1473	155	69	65	10	2	301
Kollam	1167	1732	997	1890	903	1282	512	264	239	24	18	1057
Kottayam	1327	1741	1812	1854	356	1427	619	129	58	26	11	843
Kozhikode	943	1338	1433	1151	869	1112	558	220	147	42	16	983
Malappuram	1193	1334	1601	729	920	1339	466	413	314	17	5	1215
Palakkad	1531	1977	2746	1267	661	1628	549	95	46	39	18	747
Pathanamthitta	1941	2061	3508	2119	4592	2225	372	112	75	27	13	599
Thiruv	1280	1498	1543	1018	1500	1344	954	203	197	33	6	1393

Anantha puram												
Thrissur	1044	1391	995	1676	750	1112	830	251	155	23	23	1282
Wayanad	2446	1198	943	700		2171	162	25	14	2		203
Total	1260	1449	1451	1337	981	1319	7388	2181	1554	366	189	11678

Note: Computed by authors; EMI: Emigrant; REM: Return Emigrant, OMI: Out migrant, ROM: Return out migrant

Source of Data: Kerala Migration Survey, 2018

Table 10.7 shows the average household medical expenses in a year across districts and types of households. These include expenses for all types of diseases including chronic diseases. It is estimated for the household and not for individuals. Medical expenses are more among the emigrant households than non-migrant households in the state. An emigrant households spent an average of Rs. 26,432 a year while it is Rs. 16,903 for non-migrant households.

Table 10.7 Average Medical expenses of individuals in a year by district, Kerala 2018

District	Mean expenses						Number of households					
	Type of households					Total	Type of households					Total
	Non-migrant	EMI	REM	OMI	ROM		Non-migrant	EMI	REM	OMI	ROM	
Idukki	25771	30202	52700	74486	105784	28306	477	37	10	11	5	540
Pathanamthitta	23393	28904	28883	30724	23786	25307	386	115	59	25	14	599
Malappuram	22542	29216	22263	29552	29450	24894	623	516	335	23	2	1499
Thiruvananthapuram	20414	30874	26792	13228	20625	22668	1113	245	191	29	8	1586
Kozhikode	14729	34853	20925	25692	27119	20522	810	292	166	65	16	1349
Ernakulam	17274	22781	87250	109583	65333	19762	1441	70	32	12	3	1558
Palakkad	19980	20837	18900	15291	9519	19650	930	125	73	50	18	1196
Kottayam	14785	38968	25660	19176	4382	18844	733	138	51	27	11	960
Kannur	16409	20534	27669	18525	8304	18502	628	238	106	61	14	1047
Kollam	12986	23638	21810	15987	18870	17317	671	305	222	38	20	1256
Kasargod	14552	24903	13148	15406	3000	16386	289	107	87	20	6	509
Thrissur	12221	23009	19398	14689	16288	14802	1054	251	139	36	17	1497
Alappuzha	11720	14260	14234	19593	6977	12511	589	165	115	51	69	989
Wayanad	8652	6528	7756	4360	na	8308	319	45	18	5	-	387
Total	16903	26432	23162	23209	15789	19435	10063	2649	1604	453	203	14972

Note: Computed by authors, NA= Not Available, EMI: Emigrant;

REM: Return Emigrant, OMI: Out migrant, ROM: Return out migrant

Source of Data: Kerala Migration Survey, 2018

Conclusion and Policy Implications

The above analysis helps to understand that livelihood assets are not uniformly distributed among migrant and non-migrant households. It is a common belief that migrant households are better than the non-migrant households in gaining livelihood assets. This study noted that in the case of human asset indicators, non-migrant households had some advantage over the migrant households. The former are better in health status compared to emigrant or out-migrant households. The spatial dimensions of human asset showed a clear distinction among North, Central and South regions of the state.

There is significant variation in health assets among households classified in terms of migration status. Non-migrant households have relatively better in health assets than migrant households. Evidences suggest that gender and spatial dimension of health assets are important in Kerala for designing welfare programs and policies for the citizens. It is found that non-migrant households are better in health seeking behavior and health expenditure. This is against the general notion that migrant households are better in livelihood assets because they gain more resources from abroad

Percentage of people with professional degree is more in emigrant households and outmigrant households than the non-migrant households. The professional education particularly the engineering and medical field became more expensive than in the past, and the emergence of more private institutions with profit motives creates a situation where financially better off alone can afford it. Migrant households are more likely to utilize the private educational institutions than the non-migrant households since they have better financial resources. This also reflects in the number of professional degree holders in the households. Over the last decades, females are on par with the males in gaining higher education. The share of degree holders among females is almost the same as males. It is an indicator of the better position of women in higher education sector. From a gender perspective, it has significance in terms of the women empowerment and human development.

This study has implication from an alternative economic perspective. In Kerala, policies and programmes for migrant designed uniformly without considering the assets and activities of household members. This study focused on the significance of human assets in differentiating the households apart from the gender, and spatial dimensions. The state requires strategies to address the various assets of both migrant and non-migrant households while formulating social and economic policies for both. It is welcome fact that the discreteness between migrant and non-migrant households has been downsizing over the two decades especially in the case of the for the formation of human assets. More qualitative studies are required to unearth the formation of such social and economic assets.

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11
An Alternative Approach to the Rehabilitation and Development of Return Emigrants of Kerala

Shibinu. S

Governance has become a much misunderstood and misused word. At one level governance is equated with government and is simply seen as what government does. Governance is a broad concept covering all aspects of how a country is governed, including its economic policies, regulatory framework, and adherence to rule of law. Poor governance offers greater incentives and more opportunities for corruption-the abuse of public office for private gain. Corruption undermines the public's trust in its government. It also threatens market integrity, distorts competition, and endangers economic development. The issue of 'governance reform' has come to prominence during the last decade. There are a few reasons behind this rather dramatic change in the intellectual atmosphere (Chang, 2007). First, the institution free technocratic reform programmes promoted by the International Monetary Fund (IMF) and the World Bank (IBRD) since the 1980s have almost universally failed because many of these reform programmes blatantly ignored institutional differences across countries, thereby recommending identikit policies, in what has come to be known as the 'one-size-fits-all' approach to economic policy. Today, many orthodox economists admit that policies directly derived from the experiences of the developed countries are likely to fail in developing countries. Second, a number of devastating large scale financial crises in developing countries around the turn of the century (Mexico in 1995, Asia in 1997, Russia in 1998, Brazil in 1999 and Argentina in 2002) have

prompted debates on the need for reforming institutions governance in order to prevent and deal with such crises. Third, the increasing attempts by the developed countries to 'harmonize' institutions across countries have prompted debates on the suitability of so- called 'global-standard' institutions for developing countries. The most obvious sources of such pressure have been the IMF and the World Bank, which have increasingly attached 'governance-related conditionalities' to their loans (Kapur and Webber, 2000). Developed country governments have strengthened such conditionalities by making their aids conditional on countries passing the 'health test' by the IMF and the World Bank. In addition, the WTO's unique sanctioning power has made the adoption of institutions mandated by it (e.g., strong patent law) unavoidable.

On a global scale, emigrants are considered important participants in the development of their home countries. Since 1973, due to the shortage of human resources in many Gulf countries, large-scale Keralites found their way to the Middle East. Thus, migration has been so deeply integrated that scholars even call migrants the backbone of Kerala. But recently Kerala has encountered two unprecedented situations - large scale return emigration from the Middle East is the first aspect and second is the demographic dividend of large number of youth population. The present study offers a closer view on how emigration and the socio-economic status of the returnees are correlated and also to identify what are the factors which have positively influenced the post emigration success of the returnees and their households.

Statement of the Problem

The main objective of the present study is to find out how emigration and the socio-economic status of the returnees are correlated and also to diagnose what are the factors which have positively influenced the post emigration success of the returnees and their households. Also to trace the alternatives which would enhances the chance of return to the Gulf by recognising the role of institutional good governance. Our approach to the issue of return emigration of workers from

overseas countries due to the economic recession, new labor policies and their reintegration into home economy is more scientific and pragmatic. The analysis of return emigration to Kerala necessitates the classification of return emigrants into different groups. Three of the most important variables that can help with this are duration of stay, duration after return and destination country. In the case of Kerala, welfare schemes and other developmental goals are adversely affected by inefficiency in governance mechanism. Sufficient importance has to be placed to institutional good governance. Both analytical and policy issues are discussed in reference to the existing experiences of the returnees. This study claims that future scholarship on the field of rehabilitation should be based on a more rigorous conceptual distinction between the routine measures and the institutional embedded measures in the concept of governance. By providing some insights about the channels through which institutions affect economic performance, this study seeks to contribute to the consolidation of a theory-driven, empirically-grounded and policy-relevant research programme on the institutional foundations of growth and prosperity. In any case, when such individual motives are supported by practical approaches in terms of policy, it can serve to supplement monetary development and improvement in both home and host nations.

Objectives

1. To identify the causes of increasing return emigration to Kerala.
2. To examine how emigration has influenced the socio-economic life of return emigrants their employment, source of income, means of livelihood and problems faced by them
3. To analyse the process of reintegration of return emigrants and how this has to be addressed more scientifically to make growth just and inclusive.
4. To trace the alternatives which would enhances the chance of return to the Gulf by recognising the role of institutional good governance

Methodology

The study is based on both primary and secondary data. Primary data has been obtained from return emigrants' of the Tirurangadi and Tirur taluks of the Malappuram district. Secondary data has been taken from various sources like different rounds of Kerala Migration Surveys, various publications of Centre for Development Studies, Ministry of External Affairs, NORKA, Economic and Political Weekly, Migration and Development, India Migration Reports, data published by Department of Economic and Statistics, Government of Kerala, Human Development Report etc.

Theoretical Understanding of Return Migration

Though scholarly approaches related to return migration can be traced back to the 1960s, stimulating scientific debate among scholars took place on the return phenomenon and its impact on origin countries came in the 1980s. These theoretical perceptions are playing a crucial role in orienting, if not shaping, the perceptions, taxonomies and policies adopted by governmental and intergovernmental agencies. Whatever their views and interpretations, all the theories presented below yield valuable insights in terms of level of analysis and with respect to the salience of the issue of return in analytical frameworks.

Neoclassical Economics and the New Economics of Labour Migration

The neoclassical approach to international migration is based on the notion of wage differentials between receiving and sending areas, as well as on the migrant's expectations for higher earnings in host countries (Todaro, 1969), return migration seems to be viewed as the outcome of a failed migration experience which did not yield the expected benefits. In other words, in a neoclassical stance, return migration exclusively involves labour migrants who miscalculated the costs of migration and who did not reap the benefits of higher earnings. Return occurs as a consequence of their failed experiences abroad or because their human capital was not rewarded as expected. The neoclassical economics of migration views

migrants as individuals, who maximise not only their earnings but also the duration of their stay abroad to achieve permanent settlement and family reunification. In this framework of analysis, return cannot but be motivated by a failed migration experience, in terms of expected earnings, employment and duration.

The Structural Approach to Return Migration

The structural approach to return migration shows how crucial to the return decision and the reintegration of the migrant are the financial and economic resources brought back to origin countries. Returnees' success or failure is analysed by correlating the reality of the home economy and society with the expectations of the returnee. Whatever the level of expectations of returnees, the structural approach to return migration contends that these are more often than not readjusted to local realities and that, owing to the strength of traditional vested interests in origin countries, returnees have a limited innovative influence in their origin societies. It also contends that if readjustment does not take place, the returnee may contemplate remigration. The structural approach to return migration is essential to show how influential contextual factors may be on the returnees' capacity to innovate and to appear as actors of change. Not only do skills and financial capital shape return experiences, but local power relations, traditions and values in home countries also have a strong bearing on the returnees' capacity to invest their migration experiences in their home countries.

Transnationalism and Return Migration

In an attempt to highlight the dynamic and maintenance of regular migration linkages between sending and receiving countries in the late 1980s, a fact often overlooked by the structuralists and to interpret the back-and-forth movement of people crossing borders, migration scholars from different disciplines started to adopt the transnational terminology initially used by international relations scholars. There is no question that this terminological borrowing has been subject to

various interpretations and understandings that generated a great deal of sloppiness in its usage and analytical relevance in the field of migration. Transnationalism constitutes an attempt to formulate a theoretical and conceptual framework aimed at a better understanding of the strong social and economic links between migrants' host and origin countries. One of the main contrasts between transnationalism and structuralism lies in the fact that, according to trans nationalists, returnees prepare their reintegration at home through periodical and regular visits to their home countries. They retain strong links with their home countries and periodically send remittances to their households.

Social Network Theory and Return Migration

Social network theory views returnees as being the bearers of tangible and intangible resources. Although the respective impact of tangible and intangible resources on return migrants initiatives is difficult to evaluate a priori, it seems essential to examine return migration with constant reference to these elements. Just like the transnational approach to return migration, social network theory views returnees as migrants who maintain strong linkages with their former places of settlement in other countries. However, such linkages are not the direct outcome of the abovementioned commonality of attributes. They are not necessarily dependent on Diasporas, as defined by transnationalists. Rather, in a network theoretical stance, linkages reflect an experience of migration that may provide a significant adjunct to the returnees' initiatives at home. Resources needed to secure return back home also stem from patterns of interpersonal relationships that may derive from the returnees past experiences of migration.

The foregoing comparative analysis of the theories of return migration sheds light on the economic and non-economic motivations for return, and on the need to contextualise return, in an ad hoc manner. Just as there exist several demand-pull and supply-push factors that account for the dynamics of international migration, there also exist various micro and macro factors that motivate return and shape its configuration, under

specific circumstances. It is the observers' task to identify the predominant factors.

Relevance of the Study in Alternative Framework

The present study is methodologically different from the Neo-Classical economics in some important ways. Different migration theories generate competing hypotheses with regard to determinants of return migration. While neoclassical migration theory associates migration to the failure to integrate at the destination, the new economics of labour migration sees return migration as the logical stage after migrants have earned sufficient assets and knowledge and to invest in their origin countries. Neoclassical migration theory models migration as individuals' behaviour to maximize their utility by moving to places where they can be more productive (Harris and Todaro 1970; Massey et al. 1998; Todaro and Maruszko 1987) or where they can expect the highest returns on their human capital investments (Bauer and Zimmermann 1998; Sjaastad 1962). Because of the implicit assumption that migrants have access to full information on opportunities abroad prior to migration, neoclassical migration theory and, in general, conventional push-pull models have difficulty in explaining return migration: after all, migrants whose expectations are met are expected to integrate successfully and be more productive than in their origin countries, so that there will be no rationale for returning. However, if we reject the latter assumption, it becomes possible to imagine situations in which expectations do not come out. For instance, migrants might fail to find a job and to improve their lives through migrating, in which case they are more likely to return. So, within a neoclassical migration perspective, return migration is mainly interpreted as a result of failure to find a place in receiving societies. Put differently, while 'winners' settle, 'losers' return. If migration is perceived as an individual cost-benefit analysis as in neoclassical migration perspective, it makes little sense for successful migrants to maintain economic and social ties with people living in origin societies, because these ties would only raise the financial (and psychological) costs of staying abroad and lower the costs of return migration. The other way around, economic and social ties at the

destination will decrease the costs of staying and increase the costs of returning. The institutional good governance model is a radical departure from neoclassical models (which conceptualize migration as income or utility-maximizing behaviour by individuals) to the realization of the need to articulate institutional governance measures to reduce return propensities on the labour market of the state.

Why and how did the Kerala return emigrants emigrated is the next aspect of deviation? Most basically, emigration from Kerala to the Middle East during 1970s was in tune with the operation of market forces and the government stood passive in this process. Governments at the centre and the state seldom interfere in the migration process at any stage, apart from the central government framing emigration rules and administering administrative procedures. A special study of return emigrants in 2008 indicated that about half the number of return emigrants from Kerala emigrated just to get a job - any job - as they were then unemployed in Kerala. Among the rest, insufficiency of income was the main reason for emigration for those with a job. They were compelled to emigrate because they needed to find resources to pay the dowry of children or relatives, build a house, purchase plot of land or a car or a motor cycle, and so on. In this matter, there was nothing special about Kerala emigrants - they were like any other migrant group. Friends and relatives were the principal channel through which Kerala return emigrants originally got their information about emigration. Recruiting agents were also important. They were the second most common channel for information about emigration. The role of government, state or central, is insignificant in this matter. Most basic reason for emigration from Kerala to the Middle East during 1970s occurred due to the operation of market forces and the government stood passive in this process. Since the oil price boom in the 1973, demand for labour has increased in the Middle East and emigration has become a profitable occupation for thousands of workers, especially for the low- and semi-skilled ones; who found it hard to obtain job in the home country. So emigration from Kerala is due to the

neo-classical market logic of demand-supply mismatch in the factor market of Kerala and the Middle East.

But the concept of 'rehabilitation and development' of return emigrants itself replaces the neo-classical market logic into institutional logic of governance factor and intervention as the relevant informational space for analysis. The institutional logic of governance has not received deserving importance in the developmental theories. Existence of NORKA Roots itself is an alternative to the neo-classical logic of market because emigration started as part of market logic; but for ensuring welfare to them when they return, alternative to the market logic called institutional intervention by way of good governance is badly requisite. But in developing countries, welfare measures are of limited utility for beneficiaries owing to decision taking and implementation lags, good governance has a best role to play. Institutional logic of governance and intervention substitutes a conception of rationality as utility maximization with what returnees' reason to value in order to lead a flourishing life. Despite sustained efforts to eradicate obstacles of rehabilitation of returnees, the plight of return emigrants is still pathetic. In this context, the project extends its scope broad enough to highlight the unavoidable and inseparable influence of institutional logic of governance on rehabilitation and development. This study is thus of immense significance and it tries to identify the pitfalls of governance and offers remedies. Hence, present study is alternative which replaces the whole market utilitarian basis of neo-classical analysis into the institutional logic of governance and interventions. The study is also important because it deliberately extends its scope of formulating theoretical relationship between institutional governance; rehabilitation and inclusive development return emigrants.

Emigration and Return-The Kerala Experience

Migration is one of the defining features of the twenty first century. It contributes significantly to all aspects of economic and social development everywhere, and as such will be key to achieving the Sustainable Development Goals (SDGs).

Worldwide, there were 258 million international migrants in 2017 up from 248 million in 2015, 220 million in 2010, 191 million in 2005 and 173 million in 2000. Between 1990 and 2015, the number of international migrants rose by over 60 per cent or 90 million. Two-thirds of the migrants moved to the developed world where as one-third migrated to developing regions. Of the 58 million international migrants added in the Northern hemisphere between 1990 and 2015, 76 per cent were born in the South and the remaining 24 per cent originated from the North (United Nations, 2016). From the 1980s, South Asian countries have considered migration as an important factor in employment relief (Amjad, 1989; Shah, 1995). In a review of four South Asian countries (India, Bangladesh, Pakistan and Sri Lanka), Nasra Shah observed that all these countries were pro-emigration and considered emigration 'as a quick and effective means of alleviating unemployment, or poverty, or for the individual migrant, improving his/her level of living' (Shah, 1995). Indians are now the largest Diaspora in the world, followed by Mexico, the Russian Federation and China. During the post independence period, the oil price increases of 1973 – 74 and 1979 acted as an impetus for the massive expansion of emigration from India to oil exporting countries of Gulf. The total number of migrants from India in these countries was 800000 in 1972. In 2015, 16 million persons from India were living outside of their country of birth (United Nations, 2018). India retained its position as the world's top recipient of remittances with its Diaspora sending a whopping USD 79 billion back home (World Bank, 2019). Kerala is well known in India for its population migrating not only to the other states of India, but also to other countries.

Emigration to the GCC-A Livelihood Strategy for Kerala

The role of international migration and foreign remittances in the economy of Kerala is widely acknowledged. Historically, migration to other parts of India was the dominant trend for centuries. In recent times, migration to other countries has become the dominant feature. Until the Second World War,

Kerala was a net in-migration state of India. People was came to Kerala from the neighbouring states outnumbered those who moved out of Kerala. The Second World War and the independence of India changed this trend. With the demographic expansion of Kerala and the opportunities which opened up after independence, agricultural stagnation which followed agrarian reforms and the emergence of militant trade unionism in all economic sectors, youth began to move out in larger numbers to Chennai, Mumbai, Kolkota and other major cities in the country. This was purely an economic consequence of the imbalance between demographic expansion and employment opportunities in Kerala. Most of the out migrants had all intentions of returning to Kerala once their work was over. In fact, except for those who moved into the neighbouring states of Karnataka and Tamil Nadu, most of the migrants returned once their tenure of work was over.

Kerala emigration got momentum since 1973 onwards, due to the oil boom and resultant construction jump in the Gulf countries. Lion share of the emigrants from Kerala at that time were either less educated or unskilled. But in many ways, it is a blessing for Kerala. Because, being a backward economy, Kerala couldn't provide sufficient employment to the needy people. So there was a mismatch between the supply and demand in the labour market. Emigration was a solution to the problems of unemployment, poverty and misery of the people of Kerala. This means that emigration in Kerala is profoundly caused by push factors. Employed men holding secure and well paid jobs may not largely migrate in our state. Migration occurs among unemployed and persons having ill-paid and insecure employments (Zachariah and Rajan, 2013). The number of gainfully employed in Kerala increased to 10.03 million in 2007 from 9.94 in 1998. Similarly, persons unemployed were 4.1 million in 2010, which reduced to 3.7 million in 2019 (Economic Review, 2007).

Since majority of the emigrants from Kerala belongs to Muslim community, they immigrated to the Gulf countries. The Government of Kerala followed a passive stand towards emigration. In recent years, migration from Kerala to other

countries has become so widespread that it has an important bearing on the economy and society, and therefore on the development of the state. Since the formation of Kerala, out-migration has been a way of life for the educated youth in Kerala. The effects of migration have become all-pervasive in its influence of the economic and social behaviors of the people of the state. The number of Kerala emigrants Kerala in 2014 was estimated at 36.5 lakh. This was higher than the 34.17 lakh estimated in 2018 (Zachariah and Rajan, 2018). There was a decrease of around 2.36 lakh in the number of emigrants of Kerala over the period 2013-2018. Malappuram district stands first in terms of the number of emigrants (21 per cent), followed by Thiruvananthapuram (13 per cent) and Kannur (11.0 per cent). One special feature of emigration to the Gulf is it is temporary migration. That means the emigrants have to return to our country when the work visa/permit will be expired. So return is a common feature of emigration to the Middle East. But, today return emigration is a threat to the economy of Kerala because of many reasons.

Return Emigration

Return emigrants are defined as persons who have lived outside Kerala for at least six months either for work or study or any other purposes (including accompanying spouses and parents) and now live in a household in Kerala. The number of return emigrants (REM) to Kerala in 2018 reached 1.3 million populations by 42325 people added from the last five years. The corresponding numbers were 12.50 lakh in 2013, 11.57 lakh in 2008, 8.94 lakh in 2003 and 7.39 lakh in 1998. Though the number of return migrants is increasing, the growth rate is not as fast as earlier. It was 263185 people added in this category at 2008-03 period, whereas it reduced to 42325 people recently. It is even less than one-sixth of the 2008 figure. Malappuram is showing the major return-migrant with 309881, followed by Kollam 165504 and Kozhikode (151417). Palakkad has the maximum emigrant loss from the last five years with 45281, followed by Kozhikode 43926 and Kasaragod 42398. The lowest return –migration number is reported in Idukki (42398), where the district has low emigration. Despite the positive

growth rate of return migration population, some districts are showing less difference or negative differences as well. The districts Thiruvananthapuram, Ernakulam, Thrissur, Wayanad, and Kannur are showing negative growth rate for return emigrant population.

Table 11.1: Return Emigrants by Districts, 2018

Districts	Number				
	1998	**2003**	**2008**	**2013**	**2018**
Thiruvananthapuram	118878	103959	215280	218945	93662
Kollam	74106	69314	124066	127978	165504
Pathanamthitta	54537	83502	60554	36285	54506
Alappuzha	34572	49109	51024	70104	99929
Kottayam	18164	28368	26448	33898	41775
Idukki	5017	3766	3213	3242	6137
Ernakulam	45028	74435	68860	69545	23929
Thrissur	116788	86029	174655	103803	94279
Palakkad	39238	55008	85318	12383	57664
Malappuram	123750	141537	219736	299857	309881
Kozhikode	60910	109101	72405	107491	151417
Wayanad	3327	3852	1390	12581	12046
Kannur	28263	45394	26416	109145	94457
Kasaragod	16667	47468	27222	47212	89610
Kerala	**739245**	**893942**	**1157127**	**1252471**	**1294796**

Source: KMS, 2018

Institutional Support and Good Governance-The Indian Experience

Emigration has now become a complex and multi-stakeholder process that has to be managed in a way to benefit all the stakeholders. It is required to have a policy framework in order to enable India to objectively articulate and perform its role as a sending country. India did not have an explicit policy on emigration. The preamble to the India Emigration Act of 1922 was only a document placed as an Act to amend the law relating to emigration. From its statement of the objects and reasons, it is understood that it had two objectives; first was to restrict 'indentured emigration' and the second was to provide for the control of emigration in the future. Interestingly, the Act covered rules and regulations for the emigration of skilled persons as well. This situation continued even after independence, but

emigration, first of skilled professionals and then of low-skilled workers, picked up. The gradual increase in the price of crude and other oil products resulted in the piling up of huge surpluses of petro-dollars in some countries. Conse-quently, there were efforts to recycle such petro-dollars which in turn led to a wave of construction projects that required a large number of low-semi and high-skilled workers. Numerous instances of recruitment malpractices were reported as ensuing response exposing the inadequacy of the frameworks and rules of the Act 1922. Ultimately, the intervention of the Supreme Court of India, though gave birth to the Emigration Act of 1983, it hardly created policy environment in the country. Policy framework is required to safeguard the larger public interest by providing a framework within which indentured emigrants can take decisions. Thus, a national policy to guide emigration is also critical at this stage as the next phase of emigration from the populous states with demographic dividend like Uttar Pradesh, Bihar, and Rajasthan is likely to throw up new issues that are better addressed within a policy framework. Legislative framework, the administrative machinery and the systems and procedures are the other factors which affect governance. Along with the central government, the administrative machinery and its systems and procedures of the state governments are also responsible for matters like law and order, education, skill development, etc. all of which have a bearing on the outcome of the emigration process at the grassroots level.

Governance of Labour Migration in Kerala-The NORKA

Government of Kerala, on 6 December 1996, constituted the Department of Non Resident Keralites Affairs (NORKA) to redress the grievances of the emigrants. It was the first- ever department in the country targeted at addressing the needs of the Non-Resident citizens of a Mate. As proof of the value of this structural framework, successive governments have continued the activities of NORKA and expanded its activities to evolve into a whole range of activities for ensuring the welfare of Non-Resident Keralites (NRKs). Its objectives are to:

- Address complaints on illegal overseas recruitment agencies, non- recipient of salary, accommodation and of NRK housemaids and other women in distress.
- Address problems faced by the NRKs by interacting with the state government departments.
- Process enquires on investment opportunities in Kerala.
- Provide assistance to stranded Keratites and also take steps for bringing back the mortal remains of NRKs to Kerala.

NORKA ROOTS is the field agency of the Department of NORKA, set up in 2002. It acts as an interface between the NRKs and the Government of Kerala and a forum for addressing the NRKs' problems, safeguarding their rights and rehabilitating the returnees.

The main problem faced by NORKA ROOTS is the lack of an institutional structure and the paucity of trained and experienced hands to deal with NRK-related issues. There is no model that this department can emulate or replicate. It is important for NORKA ROOTS to have experienced hands to manage the functioning of this organisation.

Role of Institutional Arrangements and Policy Frameworks

Thus human mobility has become key elements in the developpment of Kerala. Growing attention to the development potential of migration has recently raised a new concern regarding the issue of return migration. Linked to this, the debate on the migration-development nexus considers circulation to foster development as it enhances the flow of financial, social and cultural capital to the countries of origin, in particular to Kerala. Return migration and re-integration is the key elements needs to be a concentrated tension to be given special attention to the future development of the state. This chapter has two sections. The first section presents the main socio-economic conditions of return emigrants, viz., their physical assets, public assets and social assets. A correlation analysis was carried out to analyse the effect of return emigration and the broad premises of the variables underlining the return, and is presented in the last section.

Variable Description

The study covers 200 return emigrant households from two sample areas --Tirur and Tirurangadi. For the analysis, the return migrants were classified into three age categories, 20-29 years (22.5 percent), 30-39 years (49.5 percent) and 40 years and above (28.0 percent). Most of these emigrants are educated up to the secondary school level (61 percent). The educational level of the rest of the emigrants is as follows: higher secondary education (17.5 per cent), ITI, diploma (9.5 percent) and degree or above level (12.0 percent). The relationship between age and education of these return emigrants is highly significant.

Table 11.2 Data for the Study

Duration of Stay/ Destination Countries	UAE	Saudi Arabia	Oman	Qatar	Kuwait	Bahrain	Total
1-2 y	9	10	2	1	1	1	**23**
3-4 y	13	12	4	2	2	1	**34**
5-6 y	19	22	5	3	2	2	**53**
7-8 y	18	18	5	2	2	3	**49**
9-10 y	16	14	5	2	2	2	**41**
Total	**75**	**76**	**21**	**10**	**9**	**9**	**200**
Source: Computed							

Section I- Socio-Economic Analysis of Return Emigrants

The variables selected for social and economic include age, education, religion, occupation and income during pre and post-emigration phases, type of house, income and occupation of the return emigrant, savings and present economic activity of the returnee. A Standard of Living Index of the return emigrant by their age and education was constructed to study the direct impact of economic indicators on return emigrants.

Emigration propensity increases with education and decreases with the age of the emigrants. There is a negative relationship between education and duration of residence at destination countries of the return emigrants. Table 3 shows the number of years the return emigrants lived in destination countries. In recent years, less educated emigrants appear to have returned earlier compared to the more educated emigrants. Two reasons are there for this-first, as part of the labour law reforms,

stringent punitive measures have been adopted against those who are working outside the Sponsor. Such illegal emigrants in majority cases are less educated and unskilled. Labourers from other Asian and Latin American countries are creating high competition to Indian labourers in the Middle East. This competition has created fall in the general wage rate due to oversupply of labourers. Productivity differences of labourers are also reducing opportunities for Indians. Among the emigrants between the ages 20 to 29 years, both the less educated and higher educated youth came back to their country of origin. The table also reveals that most of the return emigrants have less than secondary school education among the age group 40 years and above. In earlier times, education was not a factor influencing duration of stay in destination countries and unemployed return emigrants had a relatively lower average duration of residence, while those not in the labour force had a relatively higher average duration of residence. However, the situation has changed now and there is a marginal difference in duration of stay and education between the young and older generation of return emigrants.

Table 11.3: Duration of Emigration of the Return Emigrant by their Age and Education

Age	Education	Duration of Emigration		
		<=2years	3-5 years	6-10 years
20-29	<10th Class	50.0	16.7	0.0
	12th Class	16.7	41.7	33.3
	ITI, Diploma	10.0	25.0	33.3
	Degree and Above	23.3	16.7	33.3
	Total	100.0	100.0	100.0
30-39	<10th Class	63.3	46.9	67.6
	12th Class	16.7	25.0	16.2
	ITI, Diploma	6.7	15.6	10.8
	Degree and Above	13.3	12.5	5.4
	Total	100.0	100.0	100.0
40+	<10th Class	83.3	86.7	79.3
	12th Class	8.3	0.0	13.8
	ITI, Diploma	0.0	0.0	3.4
	Degree and Above	8.3	13.3	3.4
	Total	100.0	100.0	100.0

Source: Primary Survey, 2019

Religion has a significant role in emigration. As the Gulf countries are Muslim countries, Muslims are attracted to these places. The beliefs and custom are same and they can survive there as in their family. They know the Arabic language and can communicate with the people in the destination countries. The Gulf-migrants from other religions might need to learn the language later as part of their migration, but for them it is a tedious task which most of them fail to accomplish. The educational level of the return emigrants' reveals that, irrespective of their age, Christians are highly educated followed by Hindus (Table 11.4). Among the Muslims, most have less than secondary school education regardless of their age. The educational level of Hindu emigrants gradually increases with age. For Muslims also, educational level is positively associated with age, but the rate of growth slow when compared to Hindus.

Table 11.4 Religion of the Return Emigrant by their Age and Education

Age	Education	Religion		
		Hindu	Christian	Muslim
20-29	<10th Class	23.5	33.3	50.0
	12th Class	23.5	33.3	22.7
	ITI, Diploma	23.5	0.0	13.6
	Degree and Above	29.4	33.3	13.6
	Total	100.0	100.0	100.0
30-39	<10th Class	61.5	60.0	57.8
	12th Class	12.8	6.7	28.9
	ITI, Diploma	15.4	20.0	4.4
	Degree and Above	10.3	13.3	8.9
	Total	100.0	100.0	100.0
40+	<10th Class	85.7	33.3	84.0
	12th Class	3.6	33.3	12.0
	ITI, Diploma	3.6	0.0	0.0
	Degree and Above	7.1	33.3	4.0
	Total	100.0	100.0	100.0

Source: Primary Survey, 2019

Emigration of workers has always had a far-reaching impact on the household economy. Inflows of foreign money as well as goods are the vital source of income for the majority of migrant households. This flow of remittances not only brings about changes in the consumption pattern of the households in the

short run, but also encourages them to invest the rest in long-term economic assets. The most important question that emerges is the extent to which these remittances influence the household economy. Do they improve or maintain the same or worsen the economic status of the emigrant? In this regard, Table 9.5 provides a clear insight about the perceived economic change in emigrants during the period of emigration. Youth have a higher average income compared to the older generation return emigrants. This is clearly due to differences in their educational levels. The truth is that, average income is higher among return emigrants age 20-39 who are highly educated. However, the average income of return emigrants age 20-29 years old who have less than secondary education is higher than that of the other two age groups. It is the current disposable income of the return after they return to their origin country.

Table 11.5 Average Income of the Return Emigrant by their Age and Education during Emigration

Age	Education	N	Mean	Std. Deviation
20-29	<10th Class	13	19354	4253
	12th Class	6	15000	3347
	ITI, Diploma	3	18333	5508
	Degree and Above	3	19333	3055
	Total	25	18184	4257
30-39	<10th Class	33	17730	4494
	12th Class	5	22300	4467
	ITI, Diploma	6	17517	6744
	Degree and Above	6	20117	4109
	Total	50	18448	4847
40+	<10th Class	32	16239	3909
	12th Class	3	17667	2517
	Total	35	16493	3831

Source: Primary Survey, 2019

Today, in Kerala, there are very big houses everywhere, but many are vacant. According to the Census of India 2011, 10 per cent of the houses are vacant in Kerala. Table shows the approximate expenditure to build the house in Kerala. Most houses cost between 5 lakhs to 20 lakhs to build. It is surprising that returnees with educational qualifications less than

secondary school level have more expensive houses than returnees with higher educational qualifications. They invest most of their earnings or savings in building a house.

Table 11.6 Cost of Construction of the House of the Return Emigrants by their Age and Education

Age	Education	< 1 lakh	1 lakh to 5 lakhs	5 lakhs to 20 lakhs	20 akhs to 50 lakhs	above 50 lakhs	Total
20-29	<10th Class	0.0	23.5	46.7	85.7	0.0	37.8
	12th Class	0.0	35.3	33.3	0.0	0.0	24.4
	ITI, Diploma	50.0	11.8	6.7	14.3	0.0	15.6
	Degree & Above	50.0	29.4	13.3	0.0	0.0	22.2
	Total	100.0	100.0	100.0	100.0	0.0	100.0
30-39	<10th Class	20.0	48.6	63.6	85.7	100.0	59.6
	12th Class	40.0	22.9	18.2	7.1	0.0	19.2
	ITI, Diploma	0.0	11.4	13.6	7.1	0.0	11.1
	Degree & Above	40.0	17.1	4.5	0.0	0.0	10.1
	Total	100.0	100.0	100.0	100.0	100.0	100.0
40+	<10th Class	50.0	76.5	95.8	70.0	100.0	82.1
	12th Class	25.0	5.9	4.2	20.0	0.0	8.9
	ITI, Diploma	0.0	5.9	0.0	0.0	0.0	1.8
	Degree & Above	25.0	11.8	0.0	10.0	0.0	7.1
	Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Primary Survey, 2019

Most of the emigrants are labourers in construction sector, drivers, electricians, mechanics or salesmen in their destination countries. Though young return emigrants even have degree and above qualifications, some worked in the construction sector and as salesman. It is found that all these return emigrants were not in highly skilled professions when they were abroad irrespective of their age group (Table 11.7). There are construction labourer, drivers and salesmen in all the age groups. The businessmen in the age category 30-39 years have degree and above qualifications. But among the 40 plus age group, along with graduates, those with less than secondary level education also engaged in business.

Table 11.7 Occupation of the Return Emigrant at Destination by their Age and Education before Return

Age	Education	Agriculture, Animal husbandry labourers	Business	Construction Worker	Electrician	Heavy driver	Welder	Driver	Mechanic	Painter	Plumber	Salesman	Others
20-29	<10th Class	0.0	0.0	50	50.0	0.0	0.0	100	0.0	0.0	0.0	55.6	21.1
	12th Class	0.0	0.0	16.7	33.3	0.0	0.0	0.0	50.0	0.0	0.0	22.2	21.1
	ITI, Diploma	0.0	0.0	0.0	16.7	0.0	0.0	0.0	50.0	0.0	0.0	0.0	26.3
	Degree & Above	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.2	31.6
	Total	0.0	0.0	100	10	0.0	0.0	100	100	0.0	0.0	100	100
30-39	<10th Class	100	0.0	75.0	55.6	66.7	66.7	57.1	50.0	50.0	50.0	40.0	57.1
	12th Class	0.0	0.0	8.3	0.0	33.3	0.0	35.7	25.0	0.0	50.0	50.0	17.1
	ITI, Diploma	0.0	0.0	0.0	44.4	0.0	33.3	7.1	25.0	0.0	0.0	0.0	8.6
	Degree & Above	0.0	100	16.7	0.0	0.0	0.0	0.0	0.0	50.0	0.0	10.0	17.1
	Total	100	100	100	100	100	100	100	100	100	100	100	100
40+	<10th Class	0.0	50.0	100	100	100	66.7	100	100	100	0.0	85.7	73.9
	12th Class	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3	8.7
	ITI, Diploma	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0
	Degree & Above	0.0	50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.4
	Total	0.0	100	100	100	100	100	100	100	100	0.0	100	100

Source: Primary Survey, 2019

After their return, most return emigrants are found to be or looking to be part of the domestic labour force (Table 11.8). Most return emigrants in the age group 30-29 years with degree and above qualifications are job seekers compared to those who have 40 years and above age. Among the youth, some are not in labour force because they are engaged in higher education. Most return emigrants 40 years and above with less than secondary school education is in labour force.

Table 11. 8 Economic Activity of the Return Emigrant by their Age and Education after Return

Age	Education	In Labour force	Job Seeker	Not in Labour force
20-29	<10th Class	42.9	0.0	40.0
	12th Class	22.9	60.0	0.0
	ITI, Diploma	11.4	20.0	40.0
	Degree and Above	22.9	20.0	20.0
	Total	100.0	100.0	100.0
30-39	<10th Class	64.3	14.3	50.0
	12th Class	20.2	14.3	12.5
	ITI, Diploma	10.7	28.6	0.0
	Degree and Above	4.8	42.9	37.5
	Total	100.0	100.0	100.0
40+	<10th Class	80.8	100.0	100.0
	12th Class	9.6	0.0	0.0
	ITI, Diploma	1.9	0.0	0.0
	Degree and Above	7.7	0.0	0.0
	Total	100.0	100.0	100.0

Source: Primary Survey, 2019

Table 11.8 shows the position of the return emigrants after their return home. While some remained jobless, most return emigrants engaged in business including self-employment ventures, small-scale industries, tailoring work to textiles, bakery; auto-rickshaws, agricultural works irrespective of their education and age. Some of the returnees age 40 and above are engaged in the agricultural sector. Most of the returnees in the age group 20 to 29 years who have degree and above qualifications are unemployed or doing businesses. Among the returnees with less than secondary school education in the same age group, most are in menial jobs like labourers in the construction field, driver, electrician, salesman or painter.

The main reason for return among the migrants age 20-29 years is losing their job. Most of the returnees in this age group and have less than secondary school level education returned due to illness. This also applies to those in other age categories with the same education level. Among the return emigrants age 30 years and above, most of the less educated had lost their job whereas those less educated as well as highly educated in the 20-29 age group had also lost their job. Most reported having a low salary or not getting paid while they were abroad. Most of the return emigrants worked as labourer in construction sector, driver,

electrician, mechanic or salesman in their destination country. Some young return emigrants with degree and above qualifications had worked in the construction sector and as salesman. It is found that all these return emigrants had not been in highly skilled professions when they were abroad, irrespective of their age group (Table 11.9). Most return emigrants in all the age groups were construction labourers, drivers and salesmen. The return migrants who were businessmen abroad in the age category 30-39 years have degree and above qualifications. But among the 40 plus age group, along with graduates, those with less than secondary level education had also engaged in business.

Table 11.9 Occupation of the Return Emigrant at Origin by their Age and Education

Age group	Education	Jobless	Business	Construction	Agriculture	Electrician	Heavy Driver	Driver	Mechanic	Salesman	Plumber	Animal Husbandry	Welder	Painter	Others	Total
20-29	<10th Class	20.0	0.0	100.0	0.0	66.7	0.0	80.0	0.0	100.0	0.0	0.0	0.0	100.0	22.2	37.8
	12th Class	30.0	33.3	0.0	0.0	33.3	100.0	20.0	0.0	0.0	100.0	50.0	0.0	0.0	11.1	24.4
	ITI, Diploma	30.0	33.3	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	25.0	0.0	0.0	0.0	15.6
	Degree and Above	20.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	66.7	22.2
	Total	100.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0
30-39	<10th Class	33.3	28.6	84.6	100.0	62.5	50.0	66.7	25.0	33.3	50.0	71.4	80.0	100.0	71.4	59.6
	12th Class	13.3	42.9	15.4	0.0	12.5	50.0	11.1	0.0	50.0	50.0	14.3	0.0	0.0	21.4	19.2
	ITI, Diploma	13.3	14.3	0.0	0.0	25.0	0.0	22.2	75.0	0.0	0.0	0.0	20.0	0.0	0.0	11.1
	Degree and Above	40.0	14.3	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	14.3	0.0	0.0	7.1	10.1
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
40+	<10th Class	100.0	50.0	100.0	66.7	100.0	100.0	80.0	100.0	80.0	0.0	0.0	0.0	100.0	73.3	82.1
	12th Class	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	8.9
	ITI, Diploma	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
	Degree and Above	0.0	16.7	0.0	33.3	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	6.7	7.1
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0	100.0	100.0

Source: Primary Survey, 2019

Taking their year of return, it is found that, in 2016, most reported that they returned because they lost their job or were laid off by their company (Table 11.10). Irrespective of their age, less educated persons in all age group returned because they lost their job. Most educated persons in the 20–29-year age group had lost their job in 2018, though this was not a factor among the emigrants who returned in 2013.

Table 11.10 Reason for Return of the Return Emigrant by their Age and Education

Age	Education	Lost job/laid off	Missed family	illness	To care for elderly	Accomplished goals for migration	Prefer to work in Kerala	Others
20-29	<10th Class	29.4	0.0	87.5	0.0	0.0	0.0	33.3
	12th Class	17.6	50.0	0.0	0.0	0.0	33.3	40.0
	ITI, Diploma	23.5	0.0	0.0	0.0	0.0	0.0	20.0
	Degree and Above	29.4	50.0	12.5	0.0	0.0	66.7	6.7
	Total	100	100	100	0	0	100	100
30-39	<10th Class	65.5	66.7	66.7	25.0	80.0	66.7	48.4
	12th Class	20.7	13.3	0.0	50.0	0.0	25.0	19.4
	ITI, Diploma	6.9	6.7	33.3	25.0	0.0	8.3	16.1
	Degree and Above	6.9	13.3	0.0	0.0	20.0	0.0	16.1
	Total	100	100	100	100	100	100	100
40+	<10th Class	72.2	100	75.0	100	50.0	100	87.5
	12th Class	11.1	0.0	12.5	0.0	50.0	0.0	6.3
	ITI, Diploma	0.0	0.0	0.0	0.0	0.0	0.0	6.3
	Degree and Above	16.7	0.0	12.5	0.0	0.0	0.0	0.0
	Total	100	100	100	100	100	100	100

Source: Primary Survey, 2019

Returnees in the age group 20-29 years have more savings compared to other age groups, which may be due to the change in value of money. Highly educated returnees have more savings than the other age groups. These savings are current savings of the return emigrants.

Table 11.11 Average Savings of the Return Emigrants by their Age and Education

Age group		N	Mean	Std. Deviation
20-29	<10th Class	5	20090	10571
	12th Class	3	19333	1155
	ITI, Diploma	4	18625	6872
	Degree and Above	3	32000	26907
	Total	15	21930	13159
30-39	<10th Class	15	29320	15190
	12th Class	3	17333	2517

	ITI, Diploma	3	27333	15011
	Degree and Above	2	20120	6901
	Total	23	26697	13809
40+	<10th Class	16	25132	17265
	12th Class	1	12000	
	ITI, Diploma	1	15000	
	Total	18	23839	16656

Source: Primary Survey, 2019

To assess the standard of living of the return emigrants, quintile cut off values were identified and indexed. The asset index was computed in a unitary range, with a greater value corresponding to better economic status. Table 11.12 explains the standard of living in quintile values by dividing the data into four quintiles: Q1 (0-25 percent), Q2 (26-50 percent), Q3 (51-75 percent) and Q4 (76-100 percent). Among the less educated return emigrants in the age group 20-29 years, a few achieved standard of living fall in the Q4 quintile whereas, most of the highly educated return emigrants fall in the Q4 quintile. Education is found to have a positive effect on standard of living.

Table 11.12 Standard of Living of the Return Emigrant by their Age and Education

Age	Education	Q1	Q2	Q3	Q4
20-29	<10th Class	70.0	50.0	30.0	7.7
	12th Class	20.0	33.3	20.0	23.1
	ITI, Diploma	10.0	16.7	20.0	15.4
	Degree and Above	0.0	0.0	30.0	53.8
	Total	100.0	100.0	100.0	100.0
30-39	<10th Class	74.1	65.6	63.2	28.6
	12th Class	14.8	18.8	21.1	23.8
	ITI, Diploma	7.4	12.5	10.5	14.3
	Degree and Above	3.7	3.1	5.3	33.3
	Total	100.0	100.0	100.0	100.0
40+	<10th Class	94.7	92.9	66.7	63.6
	12th Class	5.3	0.0	25.0	9.1
	ITI, Diploma	0.0	0.0	8.3	0.0
	Degree and Above	0.0	7.1	0.0	27.3
	Total	100.0	100.0	100.0	100.0

Source: Primary Survey, 2019

Table 11.13 reports on the attitude of the return migrants towards re-migration. Most of them are not willing to re-emigrate. Among the returnees who wish to re-emigrate, the less

educated wish to do so mostly because they remain unemployed in their native place. Returnees age 40 and above wish to re-emigrate because they have passed the age limit to apply for a job in Kerala and have no hope of getting formal work at their age. On the other hand, most returnees aged between 20 and 29years wished to remain in their homeland since they hoped to get a better job here.

Table 11.13 Opinion about Re-Emigration of the Return Emigrants by their Age and Education

Age	Education	Yes	No
20-29	<10th Class	100.0	75.0
	12thClass	0.0	15.6
	Degree and Above	0.0	9.4
	Total	100.0	100.0
30-39	<10th Class	82.4	87.3
	12thClass	11.8	3.2
	ITI Diploma	0.0	4.8
	Degree and Above	5.9	4.8
	Total	100.0	100.0
40+	<10th Class	100.0	93.1
	12thClass	0.0	4.6
	Degree and Above	0.0	2.3
	Total	100.0	100.0

Source: Primary Survey, 2019

Table 11.14 explains the relationship between education and year of return. In 2013, there was a negative relationship between the number of return emigrants and their education level. This means that majority of the returnees have low education. But the situation is changing and the negative relationship between return and education level disappears over the years. In 2018, most of the returnees age 20-29 had degree and above educational qualifications. However, it is clear that more less educated and older emigrants returned compared to those who were more educated and in the lower age group.

Table 11.14 Current Age and Education of Return Emigrant based on their Return Year

Return Year	Education	20-29	30-39	40+	Total
2013	<10th Class	37.5	62.5	83.3	68.6
	12th Class	37.5	21.9	10.0	18.6
	ITI, Diploma	12.5	9.4	3.3	7.1
	Degree and Above	12.5	6.3	3.3	5.7
	Total	100	100	100	100
2016	<10th Class	44.0	58.9	80.0	59.4
	12th Class	20.0	14.3	5.0	13.9
	ITI, Diploma	16.0	12.5	0.0	10.9
	Degree and Above	20.0	14.3	15.0	15.8
	Total	100	100	100	100
2018	<10th Class	25.0	54.5	83.3	48.3
	12th Class	25.0	36.4	16.7	27.6
	ITI, Diploma	16.7	9.1	0.0	10.3
	Degree and Above	33.3	0.0	0.0	13.8
	Total	100	100	100	100

Source: Primary Survey, 2019

Among the total returnees, only 42 percent were aware about NORKA. Most of the return emigrants with less than secondary school education knew about NORKA and its programmes. Emigration clearance is required for those who have not completed secondary school level education and that could explain why they were aware about this department.

Table 11.15 Awareness of Return Emigrant about NORKA Programmes by their Age and Education

Age	Education	No	Yes
20-29	<10th Class	81.8	71.4
	12th Class	13.6	14.3
	ITI, Diploma	0.0	0.0
	Degree and Above	4.5	14.3

	Total	100.0	100.0
30-39	<10th Class	84.0	90.0
	12th Class	8.0	0.0
	ITI, Diploma	6.0	0.0
	Degree and Above	2.0	10.0
	Total	100.0	100.0
40+	<10th Class	96.4	91.7
	12th Class	3.6	4.2
	ITI, Diploma	0.0	0.0
	Degree and Above	0.0	4.2
	Total	100.0	100.0

Source: Primary Survey, 2019

Section II- Correlation Analysis

Correlation estimates the strength of the linear relationship between two variables. It ranges from -1 to +1. A correlation matrix with a set of variables, viz., age, standard of living, economic activity, return year education duration of abroad and religion is given in the table below. The sample size is 200. The correlation coefficient for education and standard of living is 0.421 and the p-value is highly significant. So there is a statistically significant relationship between standard of living and education level of the return emigrants. Similarly, the relationship of return year, education and duration of stay abroad with the age of the returnees is statistically significant. The correlation between economic activity and return year and education is also statistically significant. There is also a correlation between return year and education of the return emigrants. Higher the education of the return emigrants, higher was their duration of stay abroad. Though these variables are statistically significant, the coefficients are not closer to -1 or +1.

Table 11.16 Correlations between Variables

		Std of Living	Age	Economic Activity	Return Year	Education	Duration	Religion
Std of Living	Pearson Correlation	1	-.096	.133	.063	.421**	.049	.091
	Sig. (2-tailed)		.178	.061	.375	**.000**	.493	.201
Age	Pearson Correlation		1	-.128	-.277**	-.313**	.371**	-.064
	Sig. (2-tailed)			.071	**.000**	**.000**	**.000**	.371
Economic Activity	Pearson Correlation			1	.152*	.178*	-.086	.076
	Sig. (2-tailed)				**.032**	**.011**	.227	.287
Return Year	Pearson Correlation				1	.152*	-.021	.042
	Sig. (2-tailed)					**.032**	.767	.552
Education	Pearson Correlation					1	-.102	-.060
	Sig. (2-tailed)						.150	.395
Duration	Pearson Correlation						1	.001
	Sig. (2-tailed)							.991
Religion	Pearson Correlation							1
	Sig. (2-tailed)							

N = 200. **. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

Education and age have a strong positive correlation with the probability to stay long abroad and income which in turn closely connected with the post emigration success of the returnees and their households. Education has a strong positive correlation to duration of stay in the destination countries and income level of the return emigrants. At macro level, the household level accumulation and spending, aided by migration and remittances, contributing to overall economic prosperity of the state in terms of education, housing, consumption, saving and improvements in the standard of living, by changing individuals for the better Therefore, there is no doubt that emigration has a positive impact on the economic and social status of the return emigrants and their households.

Kerala's economy has been impacted by the remittances from the Gulf since many years. These impacts are visible in most parts of Kerala. Large numbers of luxurious or very good houses can be seen throughout the length and breadth Kerala, from the south to the north. Generally, excessive consumption of luxury items, easy way of life, increasing liabilities, decreasing agricultural production, etc., are considered to be the detrimental effects of migration. But all GCC countries have launched programmes under various rubrics, such as Bahrainization, Emiratization, Omamzation and Saudization, to increase the share of nationals in private sector employment in the face of high national unemployment, especially among the youth. This has accelerated labour market problems in Kerala.

Policy Recommendations

India, despite being a country of origin and substantial recipients of remittances with more than seven decades of national, state and local level planning experience, has not identified solutions to the mainstream problems of return emigration into its decentralized planning frameworks. It is all the more surprising that even a state like Kerala that has been in the vanguard of the international migration of workers as well as development planning, has not taken any meaningful initiative in this regard. Emigration became the direct and sole portfolio of the central government. The state government is the state level educational and revenue authorities that play a substantial role in determining the quality of the emigrants. Suffice it to say that lack of local deeds is a serious institutional failure, particularly at the state level.

1 Education has remained an underfunded service in India. Though Kerala has honourable exceptions in comparison to other states, educational outcomes and quality remains patchy. So the development of competency based curriculum and learning materials and time demanding vocational programmes, strengthening of existing vocational institutes with provision of access to the return emigrants, re-imbursement of expenses through grants-in-aid and specially designed vocationalisation of secondary and plus two education for the return emigrants

would likely produce positive effect in mitigating the problem of return and increasing the prospects of emigration.

2 Quality education is vital for placements and development is being the process of improving the overall quality of life of a group of people, and in particular expanding the range of opportunities open to them. So in addition to the central and state governments, private industry needs to get involved in the vocational capacity building programmes with provisions of governmental reimbursements of the costs in the case of return emigrants.

3 Emigration is not often a state wide phenomenon rather a specific, patchy one with a particular region or a few districts within that region leading that process. Given this reality, instead of framing policies for nation or state wide, district specific interventions conceived, developed, implemented and monitored at the state level. A district level approach to redress the problems of return could result in devising rehabilitation through capacity building initiatives. Special focus has to be given to special regions/districts which are identified as emigration prone. The problems of Malappuram district might be different for some other states as has been proved by the analysis that the pattern of education in Malappuram is different for the emigrants in other districts.

4 Another issue needs more attention is to devise measures to increase future prospects of emigration by focusing on prospective return emigrants. For this, attempts should be concentrated to deliver education and training services beyond what the normal schools or ITI curriculum provides. Opportunities must be provided to all those who had lost out earlier to rejoin and make up their credentials. The central and state governments have to funnel into the educational and training institutions in these districts. All-hands-on-a-deck approach has to be adopted by incorporating private and non-governmental sectors. Self-contained education and refresher type of modules have to be offered to make the return emigrants to pass the trade tests that the Middle East requires. Returnees with disadvantaged identities were more interested in working

towards home country development changes and they have to be provided with self-employment ventures. For the aged return emigrants, a pension scheme has to be implemented to ensure a reasonably decent living standard. No one is able to reject the unavoidable and inseparable influence contributed by emigration and remittances in the socio-economic development of the state.

5 Networking policies which promote ties between the homeland and its emigrants abroad. Several countries of origin have realized the benefits of maintaining emigrant networks both in encouraging future return migration and in ensuring a relatively secure pool of financial investors often keen on investing in their home countries. For instance, the Chinese government is focused on fostering ties with its migrant networks abroad (Jonkers 2008; Xiang 2003).

6 In an attempt to showcase themselves as attractive places to return to, India has to institute changes in the domestic laws that are perceived as potential barriers by migrant communities. The possibility of maintaining dual citizenship or some form of legal status could be an important step in the wake of future prospects of emigration. Recently India has made some positive efforts in this respect. For instance, India's constitution does not allow dual citizenship. However, following the recommendation of the High Level Committee on the Indian Diaspora, the government decided to offer the possibility of Overseas Citizen of India (OCI). Individuals of Indian origin who migrated from India and acquired the nationality of the host country may apply for this OCI. In 2015, the Indian government made further changes to the program and introduced the concept of Overseas Citizen of India Cardholder (OCC). The government amended the Citizenship Act to also relax some of the physical residency requirements (duration of stay in India) needed from non-resident Indians to apply for Indian citizenship (Government of India, 2015). The government also amended its Foreign Direct Investment (FDI) policy so that investments by OCC are deemed as domestic investments on par with investments made by residents. The cumulative effect of these policy changes has connected the Indian emigrants more closely with India. Indian

entrepreneurs continue to return home to establish businesses, including software companies, call centers, research and development outsourcing firms, and others. Most of these businesses are set up in high-tech parks or areas where they receive location-specific benefits from the government.

7 To reaffirm commitment towards emigration, several home countries have established government agencies, and in many case, a separate ministry, to coordinate various migration and return migration policies and programs. For instance, in 2004, following a number of recommendations from the High Level Committee on the Indian Diaspora, the Indian government created the Ministry for Overseas Indian Affairs to foster engagement with migrant communities around the globe and to boost remittances and investment. This ministry gathers and circulates information to migrants living abroad who wish to establish businesses in India. The government also amended its tax regulations to provide incentives for and facilitate investment from Indians living abroad. But in 2014, this ministry was absorbed into the Ministry of External Affairs. The Ministry has to be instated to promote, monitor and mitigate the interests of emigrants.

Thus socio-political and economic conditions in home countries are important determinants in deciding the success of return policies. Policies including establishing dedicated efforts of institutions governance to help returnees reintegrate into the home societies, amending and implementing age specific national flagship programmes on education and skills to allow for dual citizenships and/or relaxing restrictions on investment by emigrant communities, giving incentives for returnee entrepreneurs for self employmentprogrammes, establishing dedicated programs geared towards attracting high-skilled returnees, establishing forums aimed at promoting ties between origin and emigrants abroad to channelize remittances for the promoting job creating investments in the state.

Conclusion

To conclude, emigration from Kerala was an individual phenomenon. An emigrant, being a subject of the state, needs

the support of an array of institutions. It was a sad reflection of the system as a whole that even the individual emigrants who had done well for themselves felt that they had succeeded in spite of the system and not because of it. The perception among emigrants, that the government was pan of the problem, and not of the solution, had to be reversed. In the new phase of emigration that we are already in. individual success had to become the universal norm rather than the fortuitous exception. Individual success had to be fully backed and reinforced by the institutions of governance and not jeopardized or even compromised by them. While all this was unexceptional, the problem was that individual success would not beget the success of more individuals automatically, nor would institutional failures be self-correcting or self-limiting. The recipe of 'more individual success, less institutional failure' would, therefore, beg the question, how India and Kerala would go about ensuring that outcome. For that to happen, something more fundamental had to drive the whole effort of managing emigration from the state.

After considerable discussion, we reached the obvious conclusion that the driver of success in emigration can only be the root and branch reform of the entire emigration system, procedures and practices of unwavering commitment to the process of continuous improvement. They would include reforms of the policy, the legislation and the institutional architecture supporting emigration at the level of the central and state governments. It was only through a determined push to reform every aspect of emigration, including the issue of rehabilitation of the returned that the state could hope to ensure the current phase of emigration consolidated and taken to a higher qualitative level, but also that the gains from emigration are more equitably shared among all the stakeholders. Only then would India -a large, pluralistic democracy of the size of a continent that was simultaneously a country of origin, transit and destination, and a global economic force, be able to tap the existing demographic dividend and also be able to place emigration into development in its unique way.

Despite sustained efforts to eradicate obstacles of rehabilitation

of returnees, the plight of return emigrants is still pathetic. It is evident from the in-depth interviews that many of the welfare measures are of limited utility for beneficiaries owing to asymmetric information and limited coverage. Institutional support and policy initiatives from the institutions can work wonders in the successful implementation of rehabilitation and welfare programmes targeted at the upliftment, reintegration of the returnees and could increase the future of prospective emigrants among the returnees. Thus, one can undoubtedly point to effective governance as an indispensable factor of economic development and welfare of the return emigrants, without a criteria paribus assumption.

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